DYNAMIC CAPABILITIES ANALYSIS AND THE M&A PROCESS IN THE STEEL INDUSTRY: A MANAGERIAL PERSPECTIVE

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Abstract

This research seeks to provide a robust framework for dynamic capability building processes in the steel industry. These specific multifaceted routines represent the single-case main unit of analysis for the study. The existing body of knowledge within the Dynamic Capabilities View (DCV) assumes risk minimisation via establishment of extensive monitoring activities of external changes in combination with capability optimisation through renewal efforts. Using multiple sources of evidence such as semi-structured interviews with Russian senior managers based in the international steel sector and internal management reports, these main DCV principles were challenged and modified through particular industry application.

Within the steel sector both dynamisms and complexity of the exercise mainly derive from internal factors rather than external changes. Furthermore, a key finding was identification of practical obstacles to dynamic capability building associated with the rather negative role of industry-specific path dependencies, questioning the appropriateness of focus on renewal aspects as emphasised in more traditional literature. The major contribution of the thesis is the development of a tentative framework for fluctuation control of resource value, impact of exogenous dynamics in combination with determination of contemporary valid time frames for future forecast. The presented framework outlines stumbling blocks to and major phases of routine development activities. Awareness of these factors may increase timely and full exploitation of available resource material and guide managerial establishment of respective capability practices. Additionally, the suggested process emphasises a clear distinction between quasi-static and dynamic elements within the overall building exercise.

A further contribution concerns the role of mergers and acquisition (M&A) for the DCV. Affected by the requirement of rapid decision making and strategic responses to continuous flux, the importance of M&A for the process needs to be regarded as relatively low – mainly due to decreased flexibility and the long term integration approaches required for implementation of this particular method of external growth. The study concludes that, logically, the purpose of dynamic capabilities is not aimed at generation of competitive advantage but rather assistance with organisational survival within certain contexts.

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Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work.

Name: Gregory Ludwig

Signature:

Date: 12 December 2008

CHAPTER 1: INTRODUCTION

1.1 Introduction: Research Motivation

This study focuses on dynamic capabilities (DC) and their potential role for strategic decision making within the industry context of the steel sector. Dynamic capabilities are an emergent theme which increasingly attracts practical interest and academic research activities. Yet, it is an area characterised by particular deficiencies. Both terminology and pedigree bear certain levels of contradiction and confusion which perhaps negatively affect further progression towards maturity. An example is the somewhat wild proliferation of employment of the nouns "dynamisms" and "dynamics" in the literature which often carry dissimilar meanings in different contexts and are not always accompanied by respective clear definitions[1]. At the same time, the narrow subject of dynamic capabilities is likely to represent a promising avenue for further understanding of critical decision making processes and their impact on strategic challenges and their approach. However, a number of barriers have perhaps inhibited smooth progress and knowledge accumulation in the past.

The research builds on the observation that the so-called dynamic capabilities view (DCV) within strategic management currently lacks sufficient industry-specific application and managerial relevance. Despite relatively recent and relevant publications in this area (e.g. Teece, 2007; Lee and Kelley, 2008), in particular description and understanding of specific processes within dynamic capability building exercises themselves may be described as incomplete in comparison with more mature areas in strategy. An example is the resource-based view of the firm (RBV). Following this line of argument, further justified in subsequent chapters, the chosen pathway represents an attempt to realise such a practical "test" of existing knowledge on dynamic capabilities in the realities of the steel industry and to simultaneously provide an effort to add to this key area of study. Despite the critical points raised above, existing knowledge on

[1] Within this study, the two terms are employed interchangeably and describe either movements towards or actual phenomena which are responsible for a variety of changes both internally and with regard to external environments.

dynamic capabilities acted as analytical "orientation" guidance or theoretical foundation for the academic investigation itself. Moreover, the presented study both acknowledges and highlights existing contradictions in the literature and aims to provide a robust attempt to understand how managers make sense of their specific business realities and related, relevant strategic decision making processes.

Both the chosen time frame and the detailed development of the object of study constitute the logical outcome of recent developments in strategy as a theoretical construct as well as a response to ongoing, wider developments in the steel sector under investigation. The latter is currently undergoing major transitions, most visible through the appearance of external growth efforts triggered by various merger activities of important steel players and respective implications. The impact of merger and acquisitions (M&A) waves on organisational dynamic capability building potential has not sufficiently been explored in the literature to date, despite some initial efforts from certain research communities (e.g. Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece and Winter, 2007). It may be observed that these trends acted as favourable conditions for further pursuit of the specific research topic. It is of perhaps equal importance to acknowledge the nature of strategy research, and to mention the emergence of additional issues influential in its evolution, as briefly presented in the following section.

Whilst M&A phenomena as an isolated area of study have received considerable attention from strategy scholars, with the exception of the cited publication above, explicit *connections* with the DCV concept are quasi non-existent to date. Nevertheless, there is a requirement to clearly articulate the role of M&A for capability-building processes which go beyond the scope of well-known papers such as Goold and Campbell (1998) or Prahalad and Hamel (1990), for example. This is due to the fact that existing attempts lack concentration on frequent routine re-configurations and modification of resource stocks but instead regard resource material as relatively static units, fully transferable across the diversified corporation. In simplified terms, the role

of M&A is hence traditionally portrayed as a plain supply source for additional resource material.

With regard to dynamic capabilities, this description needs to be initially questioned and investigated in more detail, partly based on more recent acceleration of macro environmental speed of change, affecting a variety as setting and, in particular, the steel industry. The literature review within this thesis provides a detailed underpinning of the theoretical and practical importance of the requirement to link M&A and the DCV as a justification of its highlighted role within this study.

At the beginning of every research journey, there is a problem. Retrospectively, the observation of certain contemporary issues and events in the world of business as described below, together with a general interest in the subject of strategy with all its unique, idiosyncratic dilemmas and features, resulted in the decision to begin doctoral research and to explore the challenges any project of similar scope and length naturally incorporates. The presented thesis is in a certain indirect way a documentary of the research process based on reflection. Its purpose, nevertheless, is to deliver a concise and clear account of the identified research problem in strategy and its relevance, to explain and justify the passageway taken to approach it and to provide discussion of generated findings. Any limitations are demonstrated. At the same time, a major intention is to both establish a position and set a foundation which allows critical evaluation of these findings in relation to the wider context of strategic management in the year 2008. This understanding of the field is particularly important with regard to the original contribution.

1.2 Research Focus and Approach

Before concentrating on more detailed information regarding the academic enquiry, it is important to introduce a central, and perhaps an increasingly obsolete definition of strategic management, in order to explain context-related issues in the ensuing section.

De Wit and Meyer (2004:228) explain that, in general, the strategy process deals with the question "of how strategy should be formed, who should be involved and when it should be made, whereas strategy content deals with the question of what the strategy should be and what should be the course of action the firm should follow to achieve its purpose". On this topic, Naughton (2006:1) argues that "research in strategic decision making has often been classified into two broad categories: content research which deals with the content of strategies, and process research which examines the strategic decision process and the factors that affect it".

The current study accepts the traditional need to choose between these two directions and is thus initially more associated with strategy content. Nevertheless it must be emphasised that, due to the nature of the project, and the theoretical perspective and general direction it has taken, the research question is closely linked to the specific background of the steel industry. Consequently, the research is very much context-sensitive and *not* purely exploratory. Still, at a certain point in time within the investigation, and mainly due to a better understanding of the nature of dynamic capabilities, any rigorous distinction between content and process appeared somewhat artificial and illogical; this will be explained in more detail in subsequent chapters. Because the centre of attention is on recent theoretical developments within the dynamic capabilities view and their implications for strategic processes associated with mergers and acquisitions, one objective is theory building through a relatively narrow emphasis on one particular industry setting.

In this scholarly context, the initial motivation derives from two main factors. Firstly, extensive review of the existing body of knowledge within the subject discipline of strategic management has revealed a number of critical, unresolved issues which indirectly point towards the DCV. Secondly, closer examination of relatively recent activities of a wide range of research communities leads to the belief that strategic management is a subject discipline amidst a continuous shift of thinking towards explicit incorporation of characteristics of business realities within dynamic environments through explicit focus on renewal processes of resource bases. This may have been triggered by increasing rates of change

within a variety of business settings and is likely to be accompanied by the often-stated requirement to acknowledge managerial perspectives in strategy research. The processes associated with dynamic capabilities analysis and building may add practical value as requested by senior managers. Nevertheless, a final evaluation of this particular theoretical notion with regard to strategy purpose, evolution and pedigree is currently not possible due to relatively limited research outputs to date.

It has become clear that the contemporary phenomenon of increased M&A activities in the steel industry allows closer examination of DCV-related developments and findings which, theoretically, may perhaps contribute to clarification of the its historical legacy. Yet, there is evidence of ongoing confusion in the literature in terms of whether dynamic capabilities are context-specific or not. Therefore, in order to avoid speculative propositions, the study focuses on one particular micro environment. More recent publications (Green, Larsen and Kao, 2008:63) suggest that dynamic capabilities are "characterised by an empirical elusiveness and as such are best construed as situated practices embedded within a social and physical context".

Moreover, the initial *practical* starting point of the thesis is the Russian steel industry. It is important to note that this selection was neither fully planned nor random. More exactly, there were two important factors which directly affected examination of the industry. The issue of access to relevant data: Newcastle Business School, where the researcher conducted the doctoral study, has long established connections with the Russian steel industry, enabling introduction to managers and senior managers in person. The subsequent issue of study participation had to be negotiated individually (further explained in Chapter Five) and may be regarded as an essential part of the overall research process.

The basic intention to understand this environment better, and in particular the increased M&A activities therein, a major ongoing phenomenon which is likely to culminate in an anticipated consolidation peak over the next five years or so and resulted in a specific and relatively narrow focus, both geographically and in theoretical terms. Stewart (2007:7), for instance, cited the outcome of a study

by a well known management consultancy. Accordingly, the Russian Federation will "expect robust mergers and acquisitions activity" in 2008 followed by the expectation of "the majority of deals to occur in the $100 million to $499 million range". However, due to certain industry-related aspects which emerged from the research itself, the overall importance of the *geographical* focus within the steel industry decreased considerably over the course of investigation. This is further explained in following chapters.

Apart from M&A as the major trigger to industrial change, a number of other factors need to be emphasised: when this doctoral research began in the year 2005, both the initial geographical operating environment, the Russian Federation, and the industrial context, the steel sector, were amidst a period of ongoing transition. Thus, a certain impact on the conduct of the study must be recognised and acknowledged. Any strategic analysis focuses on the senior level perspective. Due to the nature of dynamic capabilities, it is important to identify any external factors which have affected this domain in the early stages of the project.

In the Russian context, political factors such as the influence of then president Putin somewhat affected strategic decision-making power of directors of 'strategic sector' companies including those operating in the steel industry[2]. This is due to the fact that Putin divided oligarchs, traditionally well represented at the top level of Russian organisations since the 1990s, into two categories, depending on their personal loyalty to the ruling government. These could be described as "friends" and "enemies", in very broad terms. Depending on the outcome of this process, companies were either split up and put under government control (as in the case of Yukos, for instance) or "controlled" privatisation took place (LV-R).

[2] The bill on strategic sector companies was at the stage of development in the year 2005 and it was not until 2008 that it passed all major readings in the Russian parliament. Because the rules at the time simply did not exist, the precedence of practice prevailed, i.e. president Putin determined what was acceptable/unacceptable conduct by actions of approval/disapproval – and not through law. This could result in unprecedented promotions (as in the case of the steel industry) or in reprimand of political, economic, and in most extreme cases physical nature (former Yukos CEO and majority shareholder Khodorkovsky; former Aeroflot and Sibneft shareholder Berezovasky; former MOST media CEO and shareholder Gusinsky, for instance).

For a number of steel players this meant "move from public ownership to the private sector, little focus on external environments, rigid management paradigms, and the appointment of new chairmen and management directors" (PA-R[3]) was directly followed by an increase in political influence on these organisations. The direct implication, and simultaneously perhaps major difference to Western steel organisations, is the fact that despite Initial Public Offerings and privatisation efforts, in real terms the majority of shares remained in the hands of single individuals, often the person of the director and/or CEO[4]. The effect of this on capability-building exercises is explained in more detail in subsequent chapters.

Nonetheless, it is important to note that extensive international expansion of Russian steel players through M&A (GV-R) diminished the wider importance of the issue for respective organisations over the course of the study (KN-R1). It also shows that macro environmental factors are often connected and interlinked. In this particular case, political factors changed legal parameters. On the other hand, economic transition from State Planning Committee-controlled operations in the 1980s to a market economy in the 1990s back to more indirect state control in the 2000s certainly continued to affect the steel industry at the time of this research. The example hence demonstrates that any industry analysis is dependent on certain degrees of anticipation of macro environmental trends. This was fully acknowledged in the analysis of data as presented in the thesis.

[3] The identification codes for formal reports are explained in Chapter Five

[4] The key factor of such a feature (unique to the Russian context) is that the individuals who maintained their position of power under Putin's rule did so at the expense of surrendering their decision making powers (integrity comes with political sanctioning while retention of wealth requires surrendering freedom of expression). In total contrast to the earlier years of the Russian transition it has become unconceivable for an oligarch to float his shares in a strategic sector company on a public stock exchange without the green light from the Russian administrative elite. The highly hierarchical nature of the decision making process with Putin at the top can be explained in these terms in the Russian context. Interestingly, and perhaps not surprisingly, this power map did not change with the election of a new Russian president who is very much perceived as a subordinate of (for now) Prime Minister Putin.

Similarly, it is important to clarify that, at the outset, the theoretical focus was initially on sustainability of competitive advantage but, due to a number of reasons, it soon became clear that processes associated with dynamic capabilities building should represent the focal point of enquiry. This considerable shift was due to factors which are explained, clarified and justified to a large extent in the literature survey. Still, although the DCV represents the central theme of the study, it is important to acknowledge the gradual process as described above which affected this development. This is especially noteworthy given the acknowledgment of the authentic research journey over a period of three years. Also, the understanding of key assumptions and evolution of literature on competitive advantage not only clearly facilitated evaluation and employability of existing dynamic capabilities frameworks but has simultaneously highlighted their major shortfalls and natural limitations thereby indirectly contributing to the development of a context-specific model for the steel industry.

1.3 Scope of the Research and Contribution Summary

This research represents an attempt to identify factors which facilitate and enable competitive survival in the light of current and anticipated dynamics within the steel industry. Although a consensus exists in the literature with regard to increasing rates of complexity in this context, the analysed, yet not fully adopted, managerial perspective of the presented study has shed light on relevant challenges and outlined both benefits from and current limitations of realised or planned solutions for the issue.

In other words, certain indicators suggested that strategic managers in this sector may not sufficiently analyse, understand, modify and reconsider established strategic routines. This is due to relatively limited transferability of previously applied procedures on environments characterised by *unstable* external parameters and the somewhat dissimilar requirements for understanding of fluid resource bases and their capability building potential.

This study attempts to answer to the following *research questions* **from a managerial perspective**:

- **What constitutes dynamic capabilities building and how can it be planned, implemented and monitored in the particular business realities of the Russian steel industry?**
- **Do M&A activities affect dynamic capabilities building within the steel industry setting?**

With regard to capability building, special emphasis is placed on the following broad categories of factors, either directly or indirectly, associated with the conceptual notion:

- The theoretical paradox and complexities of routines and processes
- The role of intangible resources, dynamisation[5] of organisational capabilities, and managerial control of their continuous adaptations
- Description of existing internal processes for resource identification and their role within the wider DC context
- Clarification and revalidation of status and functions of dynamic capabilities through review of their potential function as threshold resources
- Exploration of links between DCV and macro environmental analysis and their practical relevance in the steel industry
- Identification and critical evaluation of the role of M&A for respective building processes

As such, the thesis may provide a number of starting points for further industry-specific application of research in the future, which, in turn, could possibly assist senior managers in their attempts to increase their abilities regarding resource renewal and re-configuration. These actions are likely to be central to and critical for consistent and satisfying operations in a variety of present and future settings. However, any such pursuit naturally depends on firms being able

[5] Within this thesis, "dynamisation" activities are defined as organisational efforts towards routine building for continuous capabilities modifications.

to understand complex internal processes and routines as well as external aspects and linkages between the two.

More specifically, this thesis has the following *objectives*:

1. To plan, conduct and complete a detailed study of the steel industry which employs original data evidence from Russian managers and enhances the understanding of that industry and the DC processes therein - establishing a framework for DCV which is based on transparency and practical relevance for strategic decision-making. This may lead to clarification whether M&A activities, and subsequent resource combinations, have an impact on dynamic capability building within the selected industry context

2. To critically review relevant literature and to identify current gaps, limitations and contradictions within the subject's existing knowledge base. More specifically, to generate in-depth insights into role and impact of both internal factors and external analysis for capability building exercises within the chosen context. This includes the specific function of strategic leadership within the DC framework through respective detailed data from senior level managers and clarification of the complexity of the process from the managerial perspective

3. To evaluate findings arising from the primary data in comparison with existing theoretical frameworks for dynamic capability building from the literature with a view to identifying pre-conditions to and practical feasibility and implementation of dynamic capability building

The example of the steel industry demonstrates that major players may face significant obstacles if they fail to acknowledge the importance of these and similar issues; this is further explained in the remainder of the thesis. The study also shows how the dynamic capabilities framework carries natural limitations to its employability. Frequent yet somehow artificial connections with the concept of competitive advantage may be inappropriate given both certain

attributes of external parameters in general, and the outcome of the academic enquiry in particular.

With the premise of managerial relevance through industry-specific and narrow focus, the major contributions of the research are the following:

- Identification and explanation of the variety of factors relevant for dynamic capabilities in the steel industry
- Exploration of complexities affecting the building exercises, both in terms of facilitators and effective blockages
- Introduction of a tentative, contributory framework which incorporates pre-conditions to and actual elements of capability building; this attempt builds on clarity regarding the limited relevance of sustainable competitive advantage at the expense of competitive survival - justified through extensive analysis of the industry and major players therein and potentially supported through more recent literature which emphasises the complexity of the subject
- The study shows that some of its specific findings considerably differ from broad principles of existing DCV knowledge and thus both re-emphasises the need for additional research and the limited applicability of universal generalisations across industries

In order to put the findings from this study in perspective within the wider field, critical evaluation has focussed on the accumulated body of knowledge. In-depth discussions of existing frameworks dealing with the strategic power of organisational capabilities built through establishment of capability dynamisation processes constituted broad frames of reference in this context.

One of the key outcomes from this particular process was the insight that perhaps not all organisations within the steel industry have constant access to general dynamic capability building due to financial barriers and feasibility issues directly connected with the characteristics of this environment. Still, even if these obstacles can be overcome, it became clear that only the presence or establishment of very complex structures of resource stock control,

modification, competitor analysis through continuous identification of threshold standards[6] in combination with macro system scanning may allow for basic implementation of DC.

On the other hand, dynamic capability building requires permanent updates which could, in individual cases, represent a full departure from their original design. As a result, permanent pressures require scholars in strategic management to address the challenge and provide more applicable tools which act as broad guidance for practitioners. This study is an initial attempt to achieve this through understanding of steel managerial daily routines and realities but also their industry environment and the latter's transition over the next few years. To assist in this attempt, the study employs the case study method as the research strategy with dynamic capability building in the steel sector as the main unit of analysis. Evidence was gathered from semi-structured interviews with the above mentioned group of steel industry managers, internal documents and reports. More specific information on the content and structure of the thesis and its specific elements is provided in the following section.

1.4 Thesis Structure

The current study includes a literature survey in Chapter 2-4. The main foci are the wider contexts of strategy evolution, the critical issues of competitive advantage and its sustainability, resource-based theory and its major limitations in today's business environments, and dynamic capabilities as the central theoretical framework of the thesis. Future avenues and unresolved aspects are highlighted to set a foundation for evaluation of the presented research. Furthermore, both general and theoretical contexts of M&A are introduced as a further central element of the research questions.

Chapter Five, representing Part 2 of the thesis, introduces the research approach and design, emphasising the fundamental role of the specifically identified and

[6] Threshold standards are those minimum requirements and actions which allow competitive survival at any given point in time. They are subject to ongoing fluctuations, depending on specific industry characteristics. This is further explained in the literature review.

selected research problem for the choice of appropriate methods, linkages with strategy as a subject of study clearly had significant function and meaning in this context.

Chapter 6-9, part three of the study, provide an extensive presentation of analysis, findings, discussion and evaluation of collected data. The concluding Chapter Ten highlights key findings, main contributions and limitations. Additionally, the scope for further research is described and justified.

PART 1: LITERATURE REVIEW

The following chapters 2-4 will establish the context and rationale for this research project. The review of the literature attempts to set the theoretical foundations through close examination of the dynamic capabilities framework, its evolution over the last decades, wider context and general position within the discipline of strategic management. For this reason, an introduction to, and critical examination of resource-based approaches to strategy and its implications for the more recent development of the DCV, is included.

Furthermore, a main focus is an examination of the potential DCV contribution to the wider framework of sustainability. In particular, the role of mergers and acquisitions and links with dynamic capability building are emphasised. A description of findings clarifies the identified gap in the literature which sets the theoretical starting point for this research project.

CHAPTER 2: COMPETITIVE ADVANTAGE AND CENTRAL DEBATES

> For within serious economic theory there are no such things as "schools" or differences of principle, and the only fundamental cleavage in modern economics is between good work and bad.
>
> *Joseph Schumpeter, 1928*[7]

2.1 Introduction

A recent article in the "Financial Times" (London, 2006:1) concluded that "dismissive attitudes towards management research and theory are not unusual among practitioners". A possible explanation is the observation that organisations "have been studied systematically for only five or six decades". However, this statement conceals a number of relevant factors, some of which will be identified in the context of basic limitations of existing work in this area. Thus, systematic and continuous review of papers and monographs is essential for identification of the status quo of theoretical knowledge and thus represents a prerequisite for any original contribution in the context of doctoral research in strategy.

As stated earlier, the intention is to provide a critical analysis of frameworks for sustainability of competitive advantage, and the connection with the M&A process, and to outline and explore the evolution and role of dynamic capabilities and respective building processes. In order to accomplish this objective, a survey of relevant and influential strategic management literature is provided and theoretical positions and perspectives are introduced and contrasted. A theoretical, conceptual framework summarises the discussion.

Stonehouse, Pemberton and Barber (2001:853) define strategic management as "a set of theories and frameworks, supported by tools and techniques, designed to assist managers of organisations in thinking, planning and acting

[7] Schumpeter, J. (1928) 'The instability of capitalism', *The Economic Journal*, 38 (151), pp. 361-386.

strategically". Although they acknowledge the existence of different schools of thought they state that "each [school of thought] emphasises certain distinct characteristics, but commonality of themes and linkages are clearly apparent". Similarly, the current study recognises the existence of different perspectives and viewpoints. However, both due to the specific research objectives and logical reasons, its main focus is centred on "resource-based theory" or the so-called "resource-based view" and in particular the more recently formed "dynamic capabilities view".

The theoretical chapters represent a coherent, yet not exhaustive compilation which combines the individual contributions of different theoretical positions. The input from a diversity of perspectives nevertheless resulted in a well-defined position throughout the thesis. This particular approach and its basic rationale will be explained, clarified and justified in the context of the research design and method chapter.

Theory discussions form the basis for evaluation and analysis of collected data and, at the same time, enable critical acknowledgement of influential academic work from the recent times. However, a further main emphasis of the literature survey lies in the recognition and exploration of a historically-rich field of research, often with contradictory evidence. In doing so, the literature review acts as an underlying foundation and theoretical basis for the remainder of the study, via the identification of current trends in the field and comparison with findings from the analysis. In this context, it is important to note that some constraints are characteristics of strategy as a subject of study. Bowman, Singh and Thomas (2002:45), for instance, describe it as the "tendency to invent new terms to label a construct even in instances where existing terms may work well, a lack of attention to prior treatments of a topic, and a lack of reconciliation between new terms used by an author with those that already exist in the literature".

These issues complicate effective comparison of existing work. Furthermore, various contradictions as mentioned above diminish the value of theoretical frameworks for practitioners, often resulting in confusion about the general

purpose for an important but sometimes neglected audience. More recently, perhaps acknowledging of this unsatisfying situation, some authors (e.g. Powell, 2001; 2002) discuss a paradigm shift with regard to the issue of practical applicability.

This thesis focuses on the notion of the DCV which has now entered the main stream of strategy research. Possible linkages with more general developments in strategic management are thus emphasised. Moreover, critical and historical review of strategy research and its evolution naturally precedes any attempt to evaluate current developments.

In order to appraise contributions to knowledge it is necessary to adopt a perspective which traces origins, identifies and challenges dominant paradigms and anticipates the focus and need for future research which "is likely to integrate and contrast multiple theories" (Herrmann, 2005:111). An example for such a possible incorporation is the following statement by Priem and Butler (2001a:31) who state "a synthesis of the resource-based and environment-based perspectives might be an important next step towards a more complete strategy theory". A similar argument comes from Herrmann (2005:111) who contends the following:

> After establishing the scope of business strategy, academics focussed on the external environment and then studied the firm, underlining the importance of resources and determining that the development and use of intangible resources and dynamic capabilities lead to competitive advantage [...] the new dominant designs in strategic management need to integrate RBV theory with other theoretical perspectives.

Huang, Dyerson and Harindranath (2006:1) share a similar belief arguing that "strategic management requires a multi-paradigmatic discipline that incorporates different theoretical perspectives and methodologies to help researchers explain firm performance". In other words, artificial boundaries between schools of thought may become blurry and the rationale behind this natural yet logical process will be explained in more detail. On the other hand, Lamond (2005) emphasises the importance of context consciousness, i.e. incorporation of socio-cultural circumstances into the evaluation of classical management theory. Therefore, any critical statements or limitations highlighted

through analytical discussion of certain concepts or areas within the subject discipline are solely based on theoretical and practical insights available at present. In no way do they represent judgmental attacks on past achievements of scholars. Certain contributions to strategic management remain invaluable, despite a generally different nature of external business environments. Management theory is naturally characterised by a relatively perishable nature because of ongoing research and a dynamic world and caution must therefore be exercised in order to avoid isolation from context or respectively detached critique. Awareness of the principles of theory evolution and knowledge accumulation over time represents a basic pre-condition and the rationale of the chapter.

Thus, this review of the literature aims to set the theoretical context and to clarify the main assumptions of past research within different strands of thought. Although a relatively young discipline (De Wit and Meyer, 2004) and together with the discussion above, it is clear that strategy research may have been subject to ongoing, evolutionary paradigm shifts over several decades. An argument is also presented for the assumption that the transition period within the field is still in process and may offer significant changes and implications for future research and application. This position is supported through practical examples and citations from selected academic literature.

Although 'classical' and contemporary strategy textbooks are cited, the main emphasis lies on peer-reviewed and acknowledged extracts from journals such as, for example, the "Strategic Management Journal" or the "British Journal of Management". Additionally, if necessary and in the spirit of both the multi-disciplinary nature of strategy and the chosen approach, academic journals from other subject disciplines are reviewed and cited. The following section defines and examines the origins and wider context starting with a historical review of work conducted by influential scholars within the fields of strategy and management.

2.2 Strategy and Competitive Advantage

> Assess the advantages in taking advice, then structure your forces accordingly, to supplement extraordinary tactics. Forces are to be structured strategically, based on what is advantageous.
>
> *Sun Tzu, ~400 B.C.*[8]

Historical overview and conceptual definitions

The quote above is taken from Cleary's (1988:48) English translation of Sun Tzu's classic collection of war wisdom. Interestingly, Mintzberg, Ahlstrand and Lampel (1998:18) described the latter as the "earliest writings on military strategy and thus influential for strategic management as an academic discipline". This analogy is problematic, simply because it does not provide clear links with business realities affected by constant challenges, mainly because of accelerated changes in both macro and competitive environments. In other words, not all strategic actions can be linked with the rationale of "battling" competitors. Conversely, survival in unstable industries may be the main focus of current interest in strategy research.

Chaharbaghi and Willis (1998:1024) reject the traditional view of strategy as reflected in the Greek noun "strategia", "the art of war". Instead, according to their line of argument, strategy formulation may only generate intended results if it represents a "dynamic process from within organisations which becomes a connecting process which links continuous revolution and constant evolution". As described by Porter (1996), strategy is related to establishment or identification of unique and valuable positions which are based on sets of activities or processes. This definition clearly hints towards the main focus of some of his past research on capability-based processes and their impact on value creation within certain industries. Such value creation may be closely associated with the definition by Aharoni (1993:31) who states that strategy "entails attempts by firms to achieve and sustain competitive advantage over other firms". The issue of competitive advantage and any realistic evaluation of

[8] Cleary, T. (1988, p. 48) *The art of war-Sun Tzu*, Boston: Shambhala.

its relevance in today's business environments requires exploration of historical roots and origins of strategic analysis, in particular with regard to the ongoing debate on the specific role of sustainability.

Strategic management as a subject of academic enquiry has been largely influenced by both resource- and industry-based research. The rich pedigree of conceptual and empirical publications will be briefly introduced. It is nevertheless of preliminary importance to emphasise that any attempt to evaluate such contributions requires understanding of origins, pioneering scholars and theoretical roots as well as understanding of respective past business realities. In other words, due to massive changes over the past two decades or so, direct comparisons or critique based on core attributes of today's external business environments should be avoided.

Even so, the basic objectives of business activities remain largely unchanged. De Wit and Meyer (2004:242), for instance, remark: "to carry out activities and to produce goods and services, firms need resources[9] which may include all means at the disposal of the organisation for the performance of value-adding activities". This essential observation outlines the central role of resources for any processes within organisations. On the other hand, Powell, Lovallo and Caringal (2006:175) emphasised the requirement to revisit the evolution of this particular theoretical position in order to understand its importance for strategy research and practice. Accordingly, "the resource-based view of the firm emphasises firm-specific competitive advantage and, in historical retrospect, emerged from a series of economic events and theoretical developments beginning in the early 1950s".

The concepts of Schumpeter (1928; 1934; 1950), Chamberlin (1935), Bain (1956), Selznick (1957), Penrose (1959) and Chandler (1962) represented the "early strategic responses to competitive forces and propelled strategy to centre stage in the mid-20th century" (April, 2004:12). Schumpeter (1928:386)

[9] Although some authors (e.g. Dierickx and Cool, 1989; Itami, 1987) prefer the term "assets" to emphasise the firm affiliation of resources, the expressions resources and assets are used interchangeably within this thesis.

described in detail the instability of external factors. Chamberlin's (1935) work "may be considered the seminal piece on competitive advantage" (Reed and DeFillippi, 1990:99). Nonetheless it is only Selznick's work (1957:67) which first emphasised the need to bring together organisations' "internal state with its external expectations". This statement is still valid and influential for the subject discipline today and will be explained later. Furthermore, important scholarly contributions have been made by Penrose in the late 1950s. Most importantly and perhaps acknowledged by scholars, the explicit connection of a "firm's growth to its resources, its past history and its evolution over time" (Lynch, 2003:68).

Although these early writers' intellectual heritage is acknowledged, more influential for today's perception of the subject discipline are the frameworks of the subsequent generation of researchers. A general consensus appears to exist based on the assumption that the beginnings of strategic management are grounded in the 1960s, in particular through the emergence of case study teaching (Herrmann, 2005) and rising popularity and establishment of business policy courses as central elements of business schools' curricula (Faulkner and Campbell, 2003). This aspect and the study of models of strategic decisions in certain settings typically "gave equal weighting to the firm and its resources as well to the industrial context in which it operated" (Fahy and Hooley, 2002:242). Such frameworks proposed rational processes of setting objectives followed by internal appraisal of capabilities and external appraisal of the outside opportunities open to firms.

In this context it is important to mention the specific theoretical contribution of Kenneth Andrews (1971) in the following. April (2004:12) provided an apt description of Andrews' main contribution to the field of "modern" strategy as the realisation of "match between what a firm can do (organisational strengths and weaknesses) within the universe of what it might do (environmental opportunities and threats)". As such, Andrews identified the two main categories of factors affecting the outcome of business strategy. This may be described as an invaluable discovery in itself. However, Collis and Montgomery (1995:121) commented that "although the power of Andrews' framework was

recognised from the start, managers were given few insights about how to assess either side of the equation systematically". Nevertheless, in retrospect, Andrews' classic book "the concept of corporate strategy" (1971) certainly contributed to the emergence of both the Industrial Organisation (IO) school of thought with its focus on the external environment and the resource-based view of the firm. It may have influenced the emergence of today's dominant paradigm in strategy. The following section on competitive advantage will provide more clarity about this.

Competitive advantage

Strategic management offers a number of established tools and frameworks. The discipline often aims to create solutions which are applicable to a number of organisations, mainly in order to facilitate survival within a variety of external business environments. Nonetheless, past research has often exclusively focussed on the quest for competitive advantage. The concept of competitive advantage "drives business strategy and has received considerable treatment in the literature" (Lado, Boyd and Wright, 1992:77). This is confirmed by Coff (1999:121) who argues that "competitive advantage is central to the field of strategic management". The abstract concept of competitive advantage continues to have significant implications for the field of strategy, its research and wider dissemination in both scholarly and teaching contexts (Powell, 2001).

It becomes clear from these three authors that many conceptual, empirical or purely theoretical investigations by strategy researchers deal with this particular issue, often indirectly, even if theoretical angles may differ from case to case. Therefore, it is of preliminary importance to exactly define competitive advantage. At the same time, it is necessary to acknowledge that this is a complex task. Furthermore, it is paradoxical in nature given the fact that existing definitions somehow reflect an ongoing state of confusion, not only within research communities but also within the ranks of senior managers. Kay (1993:31) attempted to present a definition and described the abstract concept as the following:

> An advantage one firm has over a competitor or group of competitors in a given market, strategic group or industry and therefore the value of competitive advantage will depend on the strength of the firm's distinctive capability, the size of the market, and the overall profitability of the industry.

On the other hand, Chaharbaghi and Lynch (1999:45) described competitive advantage as "the attributes and resources of an organisation that allow it to outperform others in the same industry or product market". Even so, it is important to note that "even if businesses are able to gain competitive advantage and achieve higher levels of profitability, rivals are usually quick to copy their strategies or even improve their initiatives, and thus result in a loss of competitive advantage" (Rijamampianina, Abratt and February, 2003:362). In other words, competitive advantage is naturally a perishable achievement.

This observation leads directly towards the question of sustainability. A more detailed discussion of the concept is included in this thesis; this is both due to general implications for strategic management as well as the narrow focus of the study on dynamic capabilities. Competitive advantage itself, however, is a "key concept in strategy practice and research which is dominated by two academic perspectives industrial organisation economics and the RBV of the firm" (Baaij, Greeven and van Dalen, 2004:519). Historically, these strands of thought have been characterised by relatively large research outputs in the past.

Despite the central role of the notion, more recently, some authors have questioned this status. Barney (2001:48), as an example, criticises the term competitive advantage as potentially misleading and ambiguous due to the "proliferation of different definitions in the strategic management literature". His suggestion is that researchers should decide upon the explanation which describes best their understanding of competitive advantage: (1) above-industry-average profits, (2) economic rents or (3) strategic advantage with the last describing "a firm improving its efficiency and effectiveness in ways that competing firms are not". Nevertheless, it remains unknown whether the complexity of the concept allows for such clear definitions. This is because competitive advantage may, under particular circumstances and within certain

contexts, derive from a combination of some or all of these elements or even from factors which are not included in the list above.

Sustainability

As discussed above, "the fundamental question in the field of strategic management is how firms achieve and sustain competitive advantage" (Teece, Pisano and Shuen, 1997:509). This is confirmed by Cockburn, Henderson and Stern (2000) who see the quest for the origins of competitive advantage as the fundamental challenge to strategy research - a challenge which remains unsolved to date. Consider Marks & Spencer. This business organisation with a long heritage and high brand recognition in the United Kingdom and abroad enjoyed particular competitive advantage over significant periods of time in most of the past decades (Collier, 2004). A consensus appears to exist with regard to its original sources of competitive advantage: still, excellent relationships with suppliers and unique resources did not prevent erosion of a dominant position over time. In other words, the organisation lost its leading rank in high street retailing within a relatively short period of time. Perhaps this case highlights like no other, the difficulties involved in sustaining once achieved competitive advantage.

Lack of clarity concerning the sources of sustainability requires particular attention. This may be due to both the number and complex variety of factors described in academic literature. Colgate (1998:81) stated that "the potential sources of SCA (Sustainable Competitive Advantage) are many and varied".

Management consultancy McKinsey, for instance, enjoyed a particular competitive advantage due to its distinct relational resources[10] and strong ties to the industries through an extended alumni network mainly consisting of ex-associates who moved on to work with their clients. In this particular case, the relatively short length of stay of management consultants in their chosen profession and high turnover in comparison with other industries has been

[10] Research conversation with De Wit, B. (2006)

transformed into a unique advantage, making full use of internal resource pools and their deployment.

On the other hand, Coca-Cola may be an example of sustainability. Its market power is mainly due to worldwide recognition and exceptionally strong brand development whereas it is questionable if the "secret" composition of the product itself represents the decisive source of their unique position in relation to other competitors. In a very distinctive way, the corporation finds itself in a current position where a number of future strategic failures or mistakes would possibly not directly result in significant decrease of market share. Nevertheless, two factors are important: Coca-Cola's sources of competitive advantage are industry- and to a large extent case-specific. Hence, what works for this particular company might not represent a recipe for success for different business organisations as complexity of contributing aspects is likely to exist. Secondly, even Coca-Cola's strong position is not eternal and business history provides many examples of formerly almost "invincible" companies who eventually lost their competitive positions very quickly for unclear reasons. This is mainly due to the confusion surrounding the various sources of SCA as described above.

A similar theoretical stance is taken by Powell (2001:876) through his examination of the logical and philosophical foundations of the illusion of competitive advantage; stating "competitive advantage hypotheses are varied and ambiguous, and under no reasonable interpretation admit the inference that competitive advantage produces superior performance". In this case, "better explanations for superior performance exist than specifiable causes which are tied to the concept of competitive advantage". This clear distinction is subject to debate. However, as stated earlier, this study does not aim to find explanations for superior performance but to explore the challenges of dynamic capability building in clearly defined and narrow contexts and its implications and links with the abstract concept of sustainability.

Not surprisingly, different research communities have developed different frameworks for sustainability over the past decades, quite often related to their

wider theoretical position. A definition which appears to combine the stance and spirit of the two main streams in this context is the following by Chaharbaghi and Feurer (1994:52):

> Sustainability is a measure which describes the potential of an organisation to maintain or improve its competitive position in the eyes of its customers and shareholders while having the ability to act and react within a changing competitive environment. Thus competitive advantage can only be sustained as long as this potential remains high'.

This particular definition demonstrates very clearly the importance of both external and internal analysis for the concept. Therefore, these issues cannot be investigated in complete isolation. Baaij *et al.* (2004:517) whose study explored the concept of sustainability in the context of Schumpeterian innovation, argued that SCA may be described as the key concept in strategy practice and research and has a very high degree of practical and managerial relevance due to its particular characteristics.

In past research, two classical scholars originally based within economics, David Ricardo[11] (1817) and Joseph Schumpeter[12] (1928; 1934; 1950), have had a generally accepted, relatively wide influence on strategic management as a subject. Their work is often mentioned in connection with scholarly attempts to terminate the confusion associated with the links between sustainable competitive advantage and superior economic performance.

"According to Ricardian theory, a firm achieves superior performance *through* the acquisition and ownership of scarce resources, whereas Schumpeterian theory holds that superior firm performances comes through the development and exploitation of distinctive capabilities" (Webb and Schlemmer, 2006:1). Schumpeterian innovation can be defined as the following:

> Changes in the methods of supplying commodities, such as introducing new goods or new methods of production; opening new markets, conquering new sources of supply of raw materials or semi manufactured goods; or carrying out a new organisation of industry, such as creating a monopoly or breaking one up (Brue, 2000:500).

[11] David Ricardo (* April 1772, † September 1823)
[12] Joseph Alois Schumpeter (* February 1883, † January 1950)

Rosenberg (1994) described Schumpeter as one of the most radical scholars in the subject discipline of economics of the 20th century, an observation which has its roots mainly in his rejection of perfect competition and understanding of economic growth as an evolutionary process.

Retrospectively and particularly with regard to the emergence of the notion of "hyper competition in high-velocity environments" (Eisenhardt, 1989, Brown and Eisenhardt, 1997), the distinctions between Ricardian and Schumpeterian theory appear to become more and more redundant: Wiggins and Ruefli (2005), for instance, see sustained competitive advantage not as a single advantage maintained over time but as a combination of advantages, naturally triggered by processes which require significant amounts of time. They specifically emphasise and empirically support the observation that such environments are not limited to high technology settings but are common within "a broad range of industries" (Wiggins and Ruefli, 2005:887). The underlying procedures may require a variety of activities including both acquisition of scarce resources *and* exploitation and innovative re-configuration of existing capabilities. For this reason, harmonisation of these formerly conflicting perspectives within economics can be observed at present.

However, Baaij *et al.*'s (2004:529) study also concludes that firms "do not have to be Schumpeterian innovators to achieve persistent superior performance because the latter may be realised through striving to balance exploitation of the current business and the exploration of new potential". This result contradicts the "classical view" (e.g. Abernathy and Clark, 1985:21; Bower and Christensen, 1995:43) which predicts that "Schumpeterian innovation will destroy almost all competitive advantage, and thus prevent superior performance from persisting". Yet it must be added that the confusion continues to surround transfer of conceptual Schumpeterian innovation on today's business realities, mainly due to the lack of clear distinction from other "categories" of innovation. In addition, it must be questioned whether or not superior economic performance persists over time: the research of Wiggins and Ruefli (2002:82) includes a sample of 6,772 firms in 40 industries over 25 years: as a result, "a very small minority of firms exhibit superior performance

and the phenomenon rarely persists for long time frames". In a more recent study, Carter and Ruefli (2006:3) reinforced this particular finding by stating that "persistence of superior economic performance over time is possible but rare".

Henceforth it may be argued that it is a simplification which can quite often be found in academic literature to state that sustainability of competitive advantage is synonymous with "persistence of competitive advantage over a long period of time" (Jacobsen, 1988:415; Porter, 1985). Even so, Barney's (1991:103) statement which he labels as his "equilibrium" definition is a similar simplification:

> It is not the period of calendar time that defines the existence of a sustained competitive advantage, but the inability of current and potential competitors to duplicate that strategy that makes a competitive advantage sustained.

Both accounts must be viewed very critically because they fail to acknowledge possible causalities between the two perspectives: if business organisations enjoy competitive advantage based on inability of competitors to create similar value then it is more likely that the former may be sustained over time. In contrast, long periods of calendar time of sustainable competitive advantage do not necessarily imply the existence of or derive from unique strategies and may be due to other phenomena which are not yet fully explored.

The notion of sustainable competitive advantage requires substantial revision and should not represent the focal and most urgent point of attention. To complete the historical review of influential literature on the subject, a short account of the area of IO economics, its origins, value and implications for strategy research is included below.

IO school

According to Brown and Blackmon (2005:798), "competitive advantage still ultimately rests in meeting the needs of customers, and thus market requirements play an important role". Although it is questionable whether it is

advisable to assign exclusive attention to external or even industry-related factors, the latter's particular role for both strategy process *and* content appears obvious. In this context, it is necessary to mention the specific scholarly contribution of Porter (1980). His theoretical legacy is often associated with the "structure-conduct-performance" (S-C-P) paradigm of industrial-organisational economics which "dominated the strategy discipline during the 1980s and which had a strong focus on the relationship between strategy and the external environments" (April, 2004:13). As such, it reflects both the institutional origin of Porter as an economist and the wide reaching influence of his former doctoral supervisor Richard Caves on his academic publications.

The S-C-P model "enables the analysis of a firm's local environment and links the structure of the industry within which a firm operates, its strategic alternatives, and firm performance" (Barney and Hesterly, 2006:68). IO economics assumes that "excess profits reflect monopoly or oligopoly advantages resulting from imperfect competition due to restricted entry into an industry or industry segment" (Tallman, 2003:378). In building on the S-C-P frame, Porter (1980) provided the first "dominant design" in strategic management (Herrmann, 2005) and his classic book "competitive strategy" is widely considered the most important contribution to the field. Although more recent developments within the subject discipline question this substantially positive evaluation and Porter's major frameworks have been subject to intense debate, it is generally accepted that a certain influence exists. According to Porter (1980), firms could earn monopoly rents by either selecting industries that were structurally attractive or by manipulating the forces driving competition in their favour through the selection of generic competitive strategies. Porter's (1980) "neo-classic hypotheses propose that a sustainable competitive advantage basically depends on the position of the markets and products" (Espino-Rodriguez and Padron-Robaina, 2006:50). According to Locket and Thompson (2001:741), "the [older] IO approach did explicitly treat the firm's inner workings as a black box". Ironically, it is Porter (1985) who admits that the sustainability of generic strategies requires that firms possess some barriers that make imitation of the strategy difficult.

There is little doubt that Porter's original work "has been very fruitful in clarifying our understanding of the impact of a firm's environment on performance" (Barney, 1991:100). For example, Porter's "five forces" framework for industry analysis represents an attempt to determine the strength of competitive forces. The analysis may then be employed to draw general conclusions about the industry structure. In his thorough and detailed evaluation of Porter's contribution to the strategic management area, Foss (1996) concluded that Porter transformed IO economics into an applicable and influential theoretical framework for the discipline of strategy. It is clear from this and the citations above that the contributions of economists have had a strong influence on strategy research in the past.

Rumelt, Schendel and Teece (1991:5) speak in this context of a "minor revolution in strategy thinking due to the growing role of economics". However, Faulkner and Campbell (2003) emphasise that although strategic management as a subject discipline has benefited from past contributions from economists, its theoretical roots may be varied and originate from many areas such as cognitive psychology, technology and sociology. This special emphasis on the diverse nature of strategic management is very important in order to understand its general purpose, in particular with regard to real-world applicability. Also, this observation is reflected in more recent developments in the academic field.

Nonetheless, although this thesis acknowledges IO theories for our perception of strategy as an abstract concept, it does not investigate this school of thought in greater detail. To summarise, the main finding from this brief discussion is the following: the resource-based approach, in itself more related to the focus of the doctoral study, "both incorporates and rejects central features of IO-related theories" (Conner, 1991:143); it thus represents a logical extension rather than an opposite viewpoint. It is clear that "a complete model of competence needs to incorporate aspects drawn from an externally oriented view of the firm as well as the insights available from the internally oriented resource-based view" (Bogner, Thomas and McGee, 1999:279).

In other words, the resource perspective and the industry-analysis framework should be employed as complementary and not as contradicting entities (Amit and Schoemaker, 1993). This view is clearly in line with the observation by Teece *et al.* (1997) that slavish adherence to one particular angle is likely to result in weak analysis and generation of blind spots. For this reason, the carefully selected theoretical stance incorporates both the evolution of strategic management and the contributions of various positions. In order to accomplish such completeness, the following section examines the RBV in greater detail.

2.3 Resource-Based View: Conceptual Definitions and Limitations

Resources

A basic description of different categories of firm resources is presented. Tangible or physical resources *rarely* "are a source of competitive advantage although there are, of course, notable exceptions such as the twisted copper telephone and coaxial cable wires or real estate locations adjacent to popular tourist sites which are one-of-a-kind assets that may support unusual profits" (April 2004:35). Intangible resources "are more salient than tangible resources in the early stages of a growing new venture's development" (Liechtenstein and Brush, 2001:53). The latter "have been identified as key resources and driver of organisational performance and value creation" (Pike, Roos and Marr, 2005:112). Therefore, this particular study focuses for the most part on intangible resources[13].

However, it should be acknowledged that certain resources can *not* be clearly labelled as either intangible or tangible. This is confirmed by De Wit and Meyer (2004) who acknowledge that for some resources classifications are not clear

[13] Quagli (1995:394), for instance, distinguishes between intangible "assets recognised by accounting such as patents, goodwill, advertising costs, brand and so on" which are only derived from monetary transactions with external parties and intangible resources based on the human "content of a company's activity such as workers' competencies, the reputation of the organisation among actors in the competitive system and the degree of consensus in the social community". However, such a distinction seems not to be practical for this research and therefore the terms intangible assets and intangible resources are employed interchangeably within this study.

and subject to debate. The research of Pfeffer (2005), for instance, emphasises the important role of the workforce in achieving competitive success. Pike *et al.* (2005) categorise intangible resources into three main groups:

- Human
- Organisational
- Relational

Following this particular distinction, "human resources" are intrinsic to people and include the experience, knowledge, judgment, abilities and skills of individuals associated with the firm whereas "organisational resources" comprise company-developed factors such as know-how and reputation, for example. Finally, "relational resources" are "external to the company and are determined by suppliers, customers, regulatory bodies and partners". However, the identification and classification of such resources remains a difficult issue and particular value drivers may result from complex combinations of resources from all three categories *and* tangible resources. In particular the issue of tacit knowledge will be investigated later.

The following observation has wide reaching implications. Resource bases can not be analysed in complete isolation from the industry, as they are affected by the latter. In other words, organisations and senior managers may have no direct influence on macro and the majority of micro environmental factors, but industry dynamisms clearly have a strong impact on organisations' abilities to achieve competitive advantage. This aspect is especially enhanced by the time-lagged future impact and relevance of most external factors. This is also discussed in Grant's work (1995:117) who says "the greater the rate of change in a company's external environment, the more it must seek to base long term strategy upon its internal resources and capabilities rather than an external market focus".

As a result, the resource-based view asserts that "firms gain and sustain competitive advantage by deploying valuable resources and capabilities that are inelastic in supply" (Ray, Barney and Muhanna, 2003:23). Naturally, resource-

based thinking in the tradition of the RBV is more than just a special emphasis on firm resources. It represents a very influential theoretical perspective within the subject discipline of strategic management to date. The following section introduces its main principles, key concepts and contemporary limitations in more detail.

RBV Definitions

Fahy and Hooley (2002:242) assert that "dissatisfaction with the 'industry explanation' assisted the rapid rise to popularity of the resource-based view of the firm". The latter sees business organisations as "very different collections of physical and intangible assets and capabilities and combines existing internal analysis of phenomena within companies with the external analysis of the competitive environment" (Collis and Montgomery, 1995:119). It is an approach which complements industry-based approaches. Its role, however, should not be reduced to a logical progression of the latter; this is mainly due to the complexity of its main assumptions and evolution as introduced in the following. On the other hand, it is important to note that the RBV is not a simple replacement of IO thinking (Mills, Platts and Bourne, 2003).

For the strategist, "any potentially useful input constitutes a resource, therefore, resources may be tangible or intangible" (Finney, Campbell and Orwig, 2004:71). The resource-based view within strategy has increasingly come to dominate the strategic management literature over the last two decades and "proposes that competitive advantage (and subsequently performance) is dependent on historically developed resource endowments" (Hooley and Greenley, 2005:93).

In recent years the RBV has become "one of the most influential frameworks in the strategic management literature" (Lavie, 2006:640). "An evolution can be discerned in the objectives of analysing the process of formulating strategies and the creation of competitive advantage as a result of the organisation's internal analysis, with a focus on understanding the nature of the varying assets of the firm and to know which conditions would make it possible to turn them

into lasting and sustainable competitive advantage" (López, 2005:661). Apart from identification of such firm-specific assets, the RBV also investigates their utilisation, in other words the productive use or efficient operation of resources (e.g. Miller and Ross, 2003; Rumelt *et al.* 1991). Despite the appraisal above, more recently, academic interest has shifted towards dynamic capabilities, certainly in combination with a diminished impact of RBV research outputs. Nevertheless, due to the specific role for work conducted in the area of dynamic capabilities, the main assumptions and limitations of the RBV are outlined and revisited in the following starting with an introduction of employed terminology.

A definition of resource-based theory which noticeably relates back to the original work of Barney (1991) is provided by Michalisin, Smith and Kline (1997:360); it is given below:

> Simultaneously valuable, rare, imperfectly imitable and non-substitutable [...] RBV proponents assert that ownership or control of strategic assets determines which firms can earn superior profits and which firms does not.

Interestingly, a literature survey of resource-based theories displays certain peculiarities, perhaps most strikingly the focus on superior performance and advantages, often in combination with a lack of explanations for respective foci. In this context, Lynch and Baines (2004:174) clarify that "the logical underpinning of the RBV is that the main purpose of strategy development is to identify and enhance the sustainable competitive advantage of an organisation". Yet, it does not become clear why this is a logical underpinning with regard to the nature of external environments, a point which is further discussed within this doctoral study. On the other hand, Brush and Artz (1999:223) critically remark that "Barney's (1991) four criteria for resources to confer a competitive advantage-value, rarity, imitability, and substitutability are limited in their practical usefulness for this problem because they are context-insensitive (i.e. non-contingent)".

Whilst limitations of the RBV are acknowledged and will be treated separately within this chapter, it is important to recognise that the work of Barney (1991)

has been highly influential for the evolution of respective approaches to strategy. This is confirmed by Priem and Butler (2001a:23) who state that the Wernerfelt (1984) and Barney (1991) papers "are seminal" works of resource-based thinking. Although this chapter does not aim to provide a detailed historical account of the origins of resource-based theory[14], it is necessary to emphasise the importance of the earlier mentioned Penrose (1959) for the evolution of the RBV. Rugman and Verbeke (2002:769), for instance, observe that her contribution is "considered by many scholars in the strategy field to be the [...] work that provided the intellectual foundations for the modern, resource-based theory of the firm". They add that "the emerging use of her ideas by some scholars as building blocks in models that show how sustainable competitive advantage and rents can be achieved is undeniable".

Until the late 1980s, the resource-based view "was characterised by a comparatively fragmented process of development" (Fahy, 2000:94). Naturally, this situation has resulted in extensive scholarly discussions and disputes in the early 1990s - mainly dealing with the role and position of the RBV within the wider subject discipline as well as controversy surrounding its main assumptions. For example, Conner (1991:144) addressed fundamental questions concerning resource-based paradigms. Her study confirmed that the latter are "unique and represent a theory because they provide an explanation of why the firm exists and the limits to its organisation".

For this reason, and together with the influential work of Barney (1991), a general consensus exists with regard to the existence of the RBV and its status within the discipline. Accordingly, it can only be named as an acknowledged theory since the early 1990s. However, the impact of the RBV and its ongoing, contemporary value and influence both to research communities and business reality is subject to intense academic debate and will be critically analysed in subsequent chapters through special emphasis on main limitations and more

[14] Rugman and Verbeke (2002:769) point towards the "excellent historical accounts of the origins and antecedents of the resource-based view Montgomery (1995) and Foss (1997)".

recent developments. To begin, the theoretical foundations of the RBV are reviewed in more detail.

Key concepts and limitations RBV

Tallman (2003:384) argues that "complex, tacit, embedded, knowledge-based resources such as capabilities and competencies provide the most sustainable competitive advantage". Hence, apart from attempts to explore direct or indirect implications deriving from such an account it is of similar importance to clarify the underlying concepts behind such descriptions in order to understand their accuracy. The issue of sustainable competitive advantage is characterised by constant debates. Additionally, a particularly critical issue in this context is the question of "measurement" which requires preliminary attention. Ray *et al.* (2003:24), for instance, argue that empirical approaches towards the resource-based view often simply examine "the relationship between a firm's resources and capabilities and its overall performance which can lead to misleading conclusions with regard to resource-based theory". For example, firms "may have resources that have the potential for generating competitive advantage which is not fully realised through its business activities".

On the other hand, Bharadwaj, Varadarajan and Fahy (1993:96) provide the following observation:

> Sustainability of a firm's competitive advantage are also impacted by imperfectly competitive markets for skills and resources, luck, and suboptimal decisions made by competitors" [...] although luck is beyond the control of managers, they should employ organisational analysis to become better informed than their competitors because what is based on information internal to the firm and not available to competition is more likely to generate exceptional advantages.

Dynamic capabilities represent the major theoretical focus of this research endeavour. This is because they may offer entry points for exploration of links between apparently random external factors and aligned strategy formation measures through case- and industry-specific insights into emergence of the former. In other words, continuous anticipation of macro environmental change is a key task of the senior manager. Nevertheless, in an increasingly dynamic

business world, it becomes yet more complex. In addition, Mosakowski (1997:414) stated that "the role of luck and random events in the strategy-making process is an increasingly important theme and luck, in particular, has often been credited with determining how a new firm develops and acquires resources that are unique, imitable, non-subsitutable, and valuable".

These four characteristics have often been cited in the context of sustainable competitive advantage. At the same time, both evolution and recent major changes within the RBV and its external perception within academic circles may question their general validity in today's business environments, at least with regard to the earlier reviewed standard definitions, characterisations and categorisations. Nonetheless, in order to evaluate such contributions, it is necessary to introduce the major elements of Barney's criteria in more detail below.

Valuable resources

A key component of Barney's (1991) four criteria is the concept of "value". Thus, resources are valuable if they "exploit opportunities and/or neutralise threats in a firm's environment" (Barney, 1991:105). Bowman and Ambrosini (2000:1) confirm that resource-based theory "has tended to focus on the development and protection of valuable resources". On the other hand, Priem and Butler (2001a:29) even go as far as arguing that "value is the fundamental component determining the extent of competitive advantage". They add that it is important to note that firms "that consistently generate value greater than that generated by other firms in their industry must have at least one rare resource whereas the pure existence of rare resources does not imply value generation". The exact definition of value has more recently been subject to academic debate. In an extended interview with Dearlove (2004:15), the interviewee Coimbatore Krishnan Prahalad argued that "we are moving to a new form of value creation, when value is not created by the firm and exchanged with the customer but when value is co-created by consumers and the company". He added that "we have moved away from a firm- and product-centric view of value creation to an experience-centric view of co-creation of value".

Review of research outputs carried out within this narrow area of academic enquiry demonstrates that the issue of value definitions may not be sufficiently acknowledged or investigated in the literature to date. In particular, the fact that value may be defined, interpreted and evaluated in differing or even opposite ways by business organisations, direct competitors and external observers, lacks academic attention and results in findings which are difficult to re-assess empirically. Furthermore, certain general barriers to knowledge accumulation can be observed. However, this may be due to the fact that the nature of sustainable competitive advantage is interdisciplinary (Piccoli and Ives, 2005). Thus, the issue of valuable resources highlights more fundamental challenges and predicaments of strategy research.

A critical response to Barney's (1991) four criteria are a central element of the work of Bogner *et al.* (1999:282), who comment that these are "too broad as they fail to make the distinction between processes and outcomes". Hence, in line with their argument, competitive advantage based on competencies must be differentiated from advantages based on luck or other unique resources. This account remains problematic. Although it is acknowledged that broader sets of firm resources "are also available to at least one rival firm and cannot be the basis in themselves for sustainable advantage in a competitive market" (Bogner *et al.*, 1999:282), such rigorous distinctions between subsets of resources raise the question whether both business realities and complexity of potential resources always allows for practical identification of individual contributions of different "classes" or "categories" towards value creation.

Similarly, although it is understood that not all resources are equally important or play a role for rent-generating processes or achievement of competitive advantage (Fahy, 2000) it seems unlikely that a sustained competitive advantage is simply based on unique, rare resources which themselves are the result of *one* single competence (such as the existence of "key researchers" within organisations, for instance), as the statement of Bogner *et al.*, (1999) indirectly implies. Furthermore a frequent misconception within theoretical literature is the association of achievement of sustainable competitive advantage solely with

one type of internal resource. Huang, Dyerson and Harindranath (2006), for example, suggest that firms can only achieve SCA through unique technological capabilities and superior market power in relation to competitors. This position may represent an over-simplification of business realities.

If firms possess substantial superior technological capabilities alone, this, although perhaps representing a predominantly positive factor, does not necessarily lead to achievement of sustainable competitive advantage. It is more likely to derive from a complex combination of internal capabilities. Although technology certainly represents an often cited explanation for or source of competitive advantage (e.g. Porter, 1985; Barney, 1991; Kogut and Zander, 1992; Rao, 2005), it cannot be ignored that many researchers explicitly emphasise and investigate the role of unique resources of a particular *intangible* nature. Stonehouse *et al.* (2001), for example, investigate in much detail the important role and impact of 'knowledge facilitators' and 'knowledge inhibitors' for organisational success.

Intangible factors are often associated with a further element of Barney's (1991) criteria for achievement of SCA - the notion of imperfectly imitable resources. Within this particular category of Barney's SCA specific resources, a number of different subclasses are listed. However, for the purpose of this thesis, "path dependency" and "causal ambiguity" play important roles and both concepts are therefore briefly introduced below.

Imperfectly imitable resources I - path dependency and unique historical conditions

History has value for management strategists because "it illuminates such crucial issues as organisational capabilities, path dependency and corporate culture" (Jeremy, 2002:454). In other words, the study of organisational capabilities and potential for competitive advantage should always be regarded within the context of the past. It becomes clear through the statement of Booth (2003:96), for example, that this is a neglected part of management research: hence, "the importance of history for the study of organisations is not well

understood or articulated". He adds that "the particularistic and inherently complex nature of the objects and subjects of our enquiries require historical perspective".

It is important to note that increasingly dynamic features of most business environments amplify this trend and do not diminish its impact. Teece *et al.* (1997:532) claim that "deciding, under significant uncertainty about future states of the world, which long term paths to commit to, and when to change paths, is the central strategic problem confronting the firm". Retrospectively, this simple statement by Teece and his colleagues has perhaps triggered the era of dynamic capabilities within strategic management. On the other hand, Rosenberg (1994:17) asserts that the technological trajectories of the past "leave a profound imprint upon the present" in different ways, a view which is shared by Jeremy (2002) and Teece *et al.* (1997).

Historical factors represent the central feature of the conceptual framework of path dependency, hence the ability to take advantage of the opportunities offered by scientific advances depends on the skill and knowledge acquired in developing and using technologies in the past. Path dependency refers to the idea that "a firm's new product and process developments are likely to be determined by the technological competencies of the past" (Rao, 2005:35). However, Rao (2005) does not provide sufficient explanation for his assumption that the category of technological capabilities has the main influence on these activities. A more general definition is provided by Locket and Thompson (2001:724) who described the abstract concept of path dependency as a "dependence of today's opportunities upon yesterday's decisions; hence even within the same industry there will be intrinsic differences in performance".

In other words, path dependence may imply the notion that "firms decisions and actions open up future choices regarding products, market s and technologies" (Booth, 2003:97) or give rise to the often described phenomenon (e.g. Duysters and Hagedoorn, 1998; Dosi, 1995; Miller, 1992; Leonard-Barton, 1995) of focus on existing core capabilities leading to competitive disadvantages, sometimes referred to as "competency traps". According to Jeremy (2002:438),

"past examples show that there is no single route for achieving the strategic goals of organisations". Therefore, an awareness of some past trajectories may be important. Thus, contemporary approaches to the discipline of strategic management acknowledge the existence of path dependence and unique historical conditions, although they certainly do not represent explicit foci of current research in the field.

In this context, links between organisational learning and this abstract concept can be identified in the literature. If "organisational learning is defined as the capacity or processes within an organisation to maintain or improve performance based on experience" (Nevis, DiBella and Gould, 1995:73) and is subject to "its current position and the paths ahead' (Teece *et al.*, 1997:522), i.e. path dependency, then it becomes clear that analysis of the firm's current potential for competitive advantage requires deep insights into past *and* present resource bases.

However, it is not always possible to clearly assign differences in performance to particular factors such as case-specific history. "Those [competitive] positions which exhibit greater degrees of inimitability, through causal ambiguity, path dependency or reliance on non-tradable resources, are more likely to be defensible in the longer term" (Hooley and Greenley, 2005:112).

Imperfectly imitable resources II - causal ambiguity

Causal ambiguity is a concept with a rich research history. This is mainly due to its prominent position within the resource-based view of the firm, more specifically in the context of imperfect imitability and the contribution and close proximity to knowledge-based thinking. Many authors see it as an underlying concept and strong theoretical link between the RBV and the discussion about sustainability of competitive advantage.

For example, Fahy (2000:97) suggests that "a resource may be inimitable if it cannot be clearly identified or if its ability to generate superior performance is unclear". On the other hand, a "firm [...] can protect co-developed and shared

resources from external imitation by relying on isolating mechanisms, such as property rights protection and causal ambiguity" (Lavie, 2006:649). Although the latter factor requires further investigation across research communities, to date a broad consensus regarding this abstract notion can be identified: Mata, Fuerst and Barney (1995), for instance, argued that sustained competitive advantage accrue when competitors "face significant challenges in acquiring, developing, and using value-creating resources". In order to explore the term causal ambiguity it is important to mention the terms "intangible" and "tacit knowledge" because they constitute central elements of the model. Naturally, the two expressions above cannot be investigated in isolation and this is reflected in respective academic literature as the following selected examples will demonstrate.

> The ever-increasing interest in knowledge in recent years has been accompanied by a renewed discussion of organisational learning and knowledge management and, more specifically, the potential for an organisation to generate competitive advantage on the basis of its knowledge assets (Pemberton and Stonehouse, 2000:184).

From the RBV "emerged the knowledge-based view (KBV), in which knowledge is considered the key or strategic asset for firms, the latter being defined as the body or social context in which knowledge will be developed, sustained and, consequently, protected" (López, 2005:663, Grant, 1996).

In this context and as indicated above, the role and links between tacit knowledge and intangible resources require special attention (Stonehouse and Pemberton, 1999:141).

> By its very nature, knowledge, specifically tacit or implicit knowledge, is complex and difficult to imitate.

Given this statement, possible connections with processes associated with generation of SCA become visible, mainly due to natural characteristics of the former category of knowledge. The statement above by Stonehouse and Pemberton (1999) is also indirectly confirmed by Ambrosini and Bowman (2001:825). Accordingly, tacit knowledge is argued to be "heterogeneous across firms, unique, imperfectly immobile and imperfectly imitable"; thus it allows

firms to perform better than its competitors and may represent an underlying foundation of case-specific rent-generation.

The concept of causal ambiguity may represent the most direct connection of Barney's general criterion imperfect imitability with knowledge-based sources of competitive advantage. Furthermore, the idea has resulted and perhaps even triggered the emergence of research streams with particular emphasis on hidden or invisible factors determining achievement of SCA. It exists where "resources are highly tacit, highly complex or are the result of accumulated firm-specific activities" (Reed and DeFillippi, 1990:88). Einhorn and Hogarth (1986:229) provided an interesting evaluation of its wider context and unique features with regard to the confusion surrounding varying forms of appearances.

Thus, causal ambiguity is "an intermediate state between ignorance (no distributions are ruled out) and risk (all but one are ruled out), thus, ambiguity results from the uncertainty associated with specifying which of a set of distributions is appropriate in a given situation".

In simple terms, "causal ambiguity hinders the outsider's ability to analyse the sources of a rival's success and thus easily replicate that success" (Locket and Thompson, 2001:741). A similar definition is given by Powell *et al.* (2006:175) - causal ambiguity is "the condition under which neither the firm nor its rivals can determine the causes of firm performance". However, all definitions above indirectly highlight some general, relatively problematic issues associated with such or similar concepts - henceforth, critical questions emerge.

Firstly, is the development of this abstract notion not only a reflection of the inability of both senior managers and external observers to identify particular sources of competitive advantage in certain contexts? In other words, is it appropriate to rename a state of ignorance and describe it as an independent concept? Such labelling processes fail to provide deeper explanations of this abstract yet theoretically possible locus of SCA. Therefore, it perhaps represents little more than a disguised admission of limitations of scholarly enquiry. Although it is subject to academic consensus that intangible resources and tacit

knowledge do play a major role for achievement of competitive advantage, the concept of causal ambiguity's contribution towards identification and exploration of the former is negligible to date.

Still, some researchers acknowledge similar criticism and constraints of the existing knowledge base in this area: in such cases, particular emphasis is put on uncertainty and certain degrees of incompleteness. Lippman and Rumelt (1982:420), for instance, stated that "it may never be possible to produce a finite, unambiguous list of the factors of production responsible for the success of a firm". Lado *et al.* (2006:116) observed that "causal ambiguity suggests that managers are limited in their ability to understand the sources of sustained competitive advantage". Consequently, if managers do not understand their most important strategic resources, they are unable to share them with peers or subordinates. This however, as stated by Henard and McFayden (2006:47), is an important prerequisite for achievement of SCA, where "knowledge should be actively managed if it is to provide companies with a sustainable competitive advantage due to the fact that unlike other corporate resources, its value grows with persistent sharing and exchange".

Thus, certain connections exist between the various concepts associated with knowledge-based sources of competitive advantage, particularly if they strive to fulfil the criterion of imperfect imitability. There may be direct links between causal ambiguous resources and social complexity because "knowledge that is embedded in social networks or cross-functional teams is as such firm-specific and socially complex by definition" (Coff and Laverty, 2001:3). In this context, an increasing number of researchers (e.g. Guthrie, Petty and Johanson, 2001; Marr, Gray and Neely, 2003) investigate the measurement and report of intellectual capital in order to raise awareness about the existence and value of intangible resources within organisations. This is briefly discussed in the following section.

Intellectual capital

Intellectual capital (IC) "offers a potential source of sustainable competitive advantage and is believed to be the font from which technological development and economic growth may spring" (Hayton, 2005:137). The statement implies that sustainable competitive advantage is closely linked with the issue of firm performance, a view that is generally rejected throughout this thesis. Some case-specific findings and theoretical explorations give valuable insights in this context.

The research of Bollen, Vergauwen and Schnieders (2005) reveals clear links between intellectual property (IP) as the "tangible" part of IC and firm performance in the case of the pharmaceutical industry. Nevertheless, it appears somewhat inappropriate to make such assumptions concerning the relationships of IP and IC. For example, if, according to the definition of Cegarra-Navarro (2005:3), IC comprises "those intangible assets of organisations that are not recorded in financial statements but which constitute approximately 80% of the market value", then some major contradictions concerning the nature of intellectual capital become apparent. Patents and intellectual property rights are tangible, but intellectual capital cannot be made visible following acknowledged accounting practice. IC research has "evolved at both macro and micro levels with economically-based macro levels attempting to raise general managerial consciousness of the necessity for administration of these off-the-balance sheet resources, while managerially-based micro levels seek to identify, manage and report IC" (Herremans and Isaac, 2004:218).

Therefore, measurement of intellectual capital remains problematic. This is also confirmed by the study of Marr *et al.* (2003:441).

> Specific focus on the measurement of IC has been concerned with the creation of frameworks, indices and guidelines to support the initial concepts but traditional 'narrative' reviews often lack rigour, and in many cases are not undertaken as genuine pieces of investigatory science.

Still, the statement above is somewhat irrational, given the fact that the intangible nature of intellectual capital which is partly rooted within, and is possibly linked with, the notion of causal ambiguity as discussed above does not facilitate or even allow precise mechanisms for measurement. Although complicating academic enquiry, this factor nonetheless represents one of the natural characteristics of such knowledge. At the same time, the observation does not change the fact that intellectual capital might play a role for achievement of sustainable competitive advantage and only demonstrates the current gaps of academic knowledge and practical limitations facing active researchers. Nevertheless, such restraints constitute a natural basis for further investigation and subject-specific progress.

As this strand of research is still in its infancy, it must be questioned whether the development of standardised measurements does not possibly represent a move in the wrong direction given the complex nature of intangible resources on the one hand and the existence of causal ambiguity on the other hand. The theoretical discussion and the critical evaluation of causal ambiguity as a separate concept highlights at least one current major limitation of the RBV, "the process of undertaking an empirical examination of competence and its interactions presents a challenge because of the tacit and intangible nature that the concept captures" (Bogner *et al.*, 1999:288). Although this statement appears logical, it is directly followed by the suggested procedure of "counting intellectual property rights captured by trademarks, patents, copyrights and similar registered marks in order to track outcomes of competences through core products as a measure of both the depth of a firm's competences and the breadth of the firm's ability to exploit these outcomes". This, however, seems to be an inappropriate response with regard to general difficulties associated with measurement of intangible factors such as IC.

Additionally, the reason for the critique above is the fact that the two statements cited above by Bogner *et al.* (1999) imply a strong contradiction. Earlier, it has been mentioned that clear distinctions between intangible and tangible resources are not always possible. At the same time, broad academic consensus suggests that intangible resources are more valuable for achievement of SCA. Espino-

Rodriguez and Padron-Robaina (2006:50), for instance, state that "intangible resources are assets with sufficient potential to achieve competitive advantage". Nevertheless, it is important to note that, although patents and similar legal protections may represent indicators of technical, explicit knowledge, a *direct*, causal connection between them and tacit knowledge must be questioned.

Tacit knowledge is strategically the most significant resource of the firm (Toffler, 1990; Quinn, 1992; Grant 1991; Davenport and Prusak, 1998; Gorelick, Milton and April, 2004) and represents knowledge that is, by definition, "unobservable, can not be measured directly or codified and can not be made explicit" (Berman, Down and Hill, 2002:13). Intellectual property can be defined "to include a wide range of intangible assets that may be protected as a property right under the legal framework that includes patents, copyrights, trademarks, or trade secrets" (Rao, 2005:34). However, patents certainly do not always fall into the category of knowledge as described by Berman *et al.* (2002) above. Often they represent the opposite due to their explicit nature and are therefore a further example of resources which can not be clearly classified as either tangible *or* intangible. For this reason, the statement of Menguc and Barker (2005:887) is problematic. They state that tangible resources such as patents are "protected from imitation by property rights whereas intangible resources, which might be either discrete or systemic knowledge-based resources, are protected from imitation by knowledge barriers that exist between competitors".

The earlier brief introduction of the notion of intellectual capital supports the description of practical difficulties of measuring intangible resources as outlined below and has a strong impact on the wider context of this thesis. Logical limitations and contradictions within existing research result in methodological implications for this study, explained in respective parts of this thesis. Furthermore, these constraints affect the perspective of the senior managers in a distinct, practical way, an issue which is reflected in research objectives, research design, collected data and their analysis itself. Yet, two further important limitations with regards to the resource-based view of the firm are

discussed below and may act as clarification on why dynamic capabilities are the main focal point of enquiry within this study.

The paradoxical nature of the RBV

A major limitation of the resource-based view is the paradoxical nature of its logic. In the following, RBV limitations are linked with ongoing disputes within strategic management. For example, "RBV logic suggests that the ability to measure a resource means that this resource will be less likely to be a source of sustained competitive advantage" (Lado *et al.*, 2006:116). From a different theoretical perspective, and clearly in response to the emerging RBV theory in the early 1990s, Porter (1991:108) stated that "successful firms are successful because they have unique resources [...] and they should nurture these resources". This statement is somehow typical for the allegation of "tautology" in the RBV. Lynch and Baines (2004:174) notice that critical comments concerning this school of thought are "mainly centred on the possibly tautologous nature of the RBV competitive advantage and the tendency to produce long lists of possible competitive advantage". In other words, the ability to identify possible success factors for SCA does not constitute a theory for achievement of the latter. Priem and Butler (2001b:58) investigated this problem from a perspective which is clearly grounded on the original work of Popper (1959). Thus, "a tautology is a statement that is true by logic". Applied to the RBV, they argue that "the RBV statement if a resource is valuable and rare, then it can be a source of competitive advantage is necessarily true by logic and therefore a tautology".

However, Barney (2001:42) directly responded that "the ability to restate a theory in ways that make it tautological provides no insights about the empirical testability of the theory whatsoever". Although tautology is a critical allegation which affects more than just the subject discipline of strategic management or resource-based approaches therein, the beginning of this century for the latter has been characterised by the theoretical discussions between Barney (2001) and Priem and Butler (2001a; 2001b), mainly focussing on these and similar issues. Nevertheless, this process somehow dominated and perhaps disguised

more urgent issues associated with the RBV, in particular with regard to competitive survival, acceleration of changes in external environments and the emergence of the DCV. Authors such as Furrer, Thomas and Goussevskaia (2008), for instance, emphasise other problem areas within the RBV which are discussed in the remainder of this thesis.

Still, it must be added that "anomalies, inconsistencies, [and] ad hoc stratagems can be consistent with [scientific] progress" (Lakatos, 1978:149). For this reason, Lado *et al.* (2006:125) reasonably surmise that "in order for the RBV to move forward, researchers must dislodge Popperian falsification as the basis of empirical validation because a paradoxical perspective can invigorate scholarship and advance understanding". In this context, Poole and Van de Ven (1989:564) emphasise the benefits of appreciation of contrasts and tensions between opposing theories. Hence, paradoxical perspectives acknowledge that "theories need not be completely consistent, that seemingly opposed viewpoints can inform one another" and finally that "models are, after all, just models, incapable of fully capturing the 'buzzing, booming confusion', no matter how strongly logical arrogance tries to convince theorists otherwise".

The "buzzing, booming confusion" is an often ignored yet prominent element of business realities. As the discussion above and the presence of both paradoxical and sometimes contradicting perspectives demonstrate, academic literature somehow reflects this confusion. Conversely, the described weak point of scholarly investigation triggers the question how business leaders make sense of the perplexity and complexity; how they transform their understanding of business strategy into conceptual models; and how they deal with the existing theoretical knowledge base in the subject area which in itself and due to its focus is highly relevant to the former. In order to address these vital questions, it is necessary to introduce a further key limitation of the RBV which at the same time demonstrates one of the major factors underlying the emergence of the so-called dynamic capabilities framework.

CHAPTER 3: DYNAMIC CAPABILITIES - EVOLUTION AND ROLE

3.1 The Emergence of the DCV

More recently, many researchers within the subject discipline of strategic management realise that purely endogenous or exogenous studies fail to address the nature of dynamic business realities with rapid technological changes, the impact of globalisation, the internal and external pressures for strategic change and general difficulties to sustain once achieved competitive advantage. The last are "sustainable in static or slow-moving environments" (Eisenhardt and Santos, 2002:142). Such environments, however, have little in common with today's business realities due to the factors highlighted above. Still, this simple observation by Eisenhardt and Santos questions the credibility of *static* resource-based thinking.

Nevertheless, a majority of existing academic research suggests the opposite. Barney (2001:51), for instance, purports that theoretically, "researchers need to adopt either an equilibrium or evolutionary approach to analysis". This statement is slightly misleading because, in fact, both approaches provide a rich historical pedigree of research and simultaneously offer important insights which should not be ignored. Both the RBV and the KBV are essentially characterised by a fairly static nature (López, 2005). Despite this essential observation, it can be argued that longitudinal studies investigating the evolution and dynamisms of resource pools over longer periods of time render this observation concerning "traditional" resource-based approaches redundant.

However, studies based on the assumption of static environments represent the majority of past research outputs within the area and display a number of disadvantages which are further outlined here. Firstly, they often fail to "define key underlying constructs and to carefully detail the specific mechanism purported to generate competitive advantage" (Priem and Butler, 2001a:34). Second, they do not sufficiently acknowledge a "firm's history as an important antecedent to current capabilities and opportunities" (Barney, 1991:107; also see Rowe, Rouse and Riaz, 2005:5). For instance, "the conditions under which

resources are developed or acquired in one period have implications for the strategic advantages of firms in subsequent periods" (Barney, 2001:51). Finally, "reinvestments in both present and new skills and resources are viewed as critical to strengthening (or preventing erosion of) competitive advantage" (Bharadwaj *et al.*, 1993:84). Therefore, the current study can be associated with an evolutionary stance to strategic analysis.

Static resource-based theory focuses on existing resources which are treated as being unchanging while dynamic environments "ceaselessly call for a new generation of resources as the context constantly shifts" (Chaharbaghi and Lynch, 1999:45). The absence of static environments was identified as early as in the 1980s, with the conclusion that "many firms need to cope with strategic surprises and fast-developing threats and opportunities emerging from a very dynamic environment" (Aaker, 1984:172). The following statement reinforces this point - "markets are dynamic and unpredictable" (Bowman and Ambrosini, 2000:13). In this context it is important to recall the research of Levy (1994:6) who investigated the dynamic evolution and the complex interactions among industry actors. Thus, industries are generally seen as chaotic, complex, dynamic and nonlinear systems which "do not reach a stable equilibrium". Similarly, Hooley and Broderick (1998:98) assert that "the RBV runs the risks of myopia in rapidly changing, turbulent environments due to its high abstraction level and focus on measuring current orientation rather than its deployment". However, in line with the theoretical position of Tallman (2003), this study suggests a co-evolutionary, but not necessarily random, world. Lei, Hitt and Bettis (1996:550), for instance, emphasise that "systemic, complex and dynamic meta-learning is necessary - particularly in complex, turbulent and often chaotic environments".

Dinkin (2005:6) researched the "mutual dependency" and "recursiveness" of the three elements of "praxis, practitioner and practices which will influence the conditions for action, change, innovation". Accordingly, the "micro" level of detail involved in practice becomes clear as an empirical requirement and has attracted a good deal of academic attention from various institutions. However, the value of such investigations might increase if special attention was given to

ensure that they do not solely consist of explanations or descriptions of case- or industry-specific micro level processes but explore and investigate direct implications for the wider field of strategic management through serious attempts to put such findings in the context of a dynamic world. The nature of the latter is relevant for a variety of reasons but a revised focus on it may also result in more accessible and applicable micro level strategy research. A frequently stated example of such links or connections is the concept of "strategic innovation".

Strategic innovation

Innovation, "implies the capacity to continuously develop new combinations of resources" and "produces Schumpeterian rents" (Rodriguez, Ricart and Sanchez, 2002:143). On the other hand, Hamel (1998:8) remarked that "in a discontinuous world, strategy innovation is the key to wealth creation". He went on to define the former "as the capacity to reconceive the existing industry model in ways that create new value for customers, wrong-foot competitors, and produce new wealth for all stakeholders". However, this fails to acknowledge the non-existence of automatisms transforming discontinuous change towards creation of wealth or competitive advantage. The nature of today's business realities requires continuous *and* discontinuous strategic changes for survival purposes alone.

This position does not deny, however, that "innovativeness does offer certain opportunities for rapid growth and sustainable competitive advantage" (Khandwalla, 2006:14). Nonetheless the requirement to investigate the links between such concepts and achievement of sustainable competitive advantage separately remains valid despite this observation. Lei *et al.* (1996:549), for instance, comment that "traditional approaches to studying competitive advantage, while valuable, are not adequate to explain how firms can operate effectively in turbulent and often chaotic environments". Nevertheless, it is of equal importance to acknowledge the fact that in business realities, effective barriers to innovation exist in certain industries. This will be critically reviewed through investigation of particular idiosyncrasies of the steel sector in

subsequent chapters. In order to contrast traditional with dynamic approaches it is at first necessary to introduce the employed terminology.

3.2 Dynamic Capabilities: Some Definitions

Within this sub-section, a number of selected definitions will be reviewed. However, none of these are definitive explanations of dynamic capabilities. The process of reviewing DCV specific literature and related issues culminates in the development of a personal definition by the researcher which is subsequently employed in the context of the research framework and re-modified in accordance with insights from the data analysis in later stages of the thesis.

According to Yung-Ching and Tsui-Hsu (2006:215), dynamic capabilities are "a set of specific and identifiable processes, or a pool of [controllable] resources that firms can integrate, reconfigure, renew and transfer". Eisenhardt and Martin (2000:1107) define them as "organisational and strategic routines by which the companies reach new resource configurations". They are "complex, higher order organisational processes which provide adequate conditions for the modification and renewal of the firm's stock of business assets" (López, 2005:664). On the other hand, Zollo and Winter (1999) warn of the risk of a near-tautology of defining capabilities as abilities and emphasised the structured and persistent nature of dynamic capabilities which acts as a clear distinction from organisational abilities to adapt creatively to changing environments. Interestingly, Dutta, Narasimhan and Rajiv (2005:278) describe them as "intermediate transforming abilities", thus representing an invisible step between transformations of resources into visible products. However, this particular description appears too broad and iterative, given a similar and relatively early statement by Porter (1985) in the context of his value chain framework in respect of certain input leading to measurable value creation through transformation activities.

3.3 Dynamic Capabilities and the External Environment

Although a major focus of this particular research lies on the implications of dynamic capability building processes on achievement of competitive advantage, one factor should not be ignored and requires particular emphasis. Many companies do not deliberately choose to manage such processes. They are forced into them for survival purposes alone. For example, many record companies have enjoyed major competitive advantage for a couple of decades mainly based on scale and extensive distribution networks[15]. Technological change such as internet downloads and MP3 formats have allowed new global players such as Apple Inc. entry into the music industry and arguably have let the established companies such as Sony BMG's competitive advantage appear largely redundant. As a result, the latter category of firms have had to adapt, renew or even replace their capability bases and implement major strategic changes to avoid a partial or even complete forced withdrawal from the industry.

According to the definition of Johnson, Scholes and Whittington (2005:119), "threshold capabilities" are those "essential for the organisation to be able to compete in a given market". An example is cost efficiency. However, the distinctive yet tentative position following from the literature survey alone is the observation that, under particular but recently relatively frequent circumstances, these capabilities are not sufficient to allow an organisation to stay in the business.

The emphasis shifts towards dynamic capability building which incorporates the functions of both unique resources and core competences that underpin competitive advantage *and* threshold capabilities following the definition above. In other words, dynamic capabilities may affect achievement of competitive advantage according to current and existing research but their main function and role for strategy formation as a whole can not be reduced to this business objective alone and needs to be tested through industry-specific application. The

[15] Research conversation with De Wit, B. (2006)

nature of most business environments has changed and for this reason the definitions and boundaries of threshold capabilities require substantial revision and critical re-evaluation. This may lead to a closer association with dynamic capabilities in the future.

3.4 Theoretical Roots of Dynamic Capabilities and the "Relevance" Issue

All the conceptual definitions of the DCV above emphasise the process of re-configuration of existing resources or capabilities. It is very interesting to note that this particular language and the notion of a dynamic capabilities view has emerged and been subject to evaluation by research communities only for approximately a decade, when Teece *et al.* (1997) published their influential paper which seems to build on the early comments of Nelson (1991) on dynamic capabilities. This observation, however, does not deny the influence of a rich historical research base in this area of research, which is mainly based on insights from evolutionary economics and will be briefly discussed below.

For example, Buenstorf and Murmann (2005) see the main link between evolutionary economics and capability-based approaches on the concept of the firm as an ongoing entity, based on continuity of firm routines in the tradition of Nelson and Winter's (1982) theories on patterns of organisational processes.

Although the DCV clearly derives from historical studies in other disciplines (as well as from major weaknesses of the RBV) the current context and position of its theoretical legacy is still unclear and subject to academic debate. Eisenhardt and Santos (2002:161), for instance, argue that the (earlier mentioned) "KBV is not yet a theory of strategy that goes beyond the insights provided by the resource-based view and the related dynamic capabilities approach". This statement assumes that the dynamic capabilities approach is a foundation that underlies knowledge-based thinking (2002:142) and implies that the DCV is simply an extension of the resource-based view (2002:143).

Hahn and Doh (2006) take a similar stance and outlined a theoretical evolution mainly deriving from strategic management literature struggling with the

application of resource-based perspectives within changing and turbulent environments. According to their view, two extensions to the RBV can be identified: the dynamic capabilities view at one end and "conceptual development and empirical testing of co-evolutionary theory" at the other end of the spectrum (Hahn and Doh, 2006:785). The latter field of enquiry is mainly building on the re-examination of traditional approaches to strategy research in the tradition of the original suggestions by Volberda and Lewin (2003).

Preceding this, a number of studies (e.g. Starkey and Madan, 2001; Pettigrew, 2001; Starkey, 2001) describe a *gradual* paradigm shift within the subject discipline towards management research which attempts to bridge the so-called "relevance gap", ongoing and over a prolonged period of time. In other words, practical applicability and acknowledgment of environmental realities is finally accepted as a decisive factor for theoretical investigations in this area. Baldridge, Floyd and Markóczy (2004) assumed in this context that academic quality is correlated with practical relevance.

However, these issues might be more related than Hahn and Doh's (2006) paper suggests. Due to the observation that both the emergence of the DCV and this possible paradigm shift of wider management theory seems to fall within the same broader and most recent time period, this may be viewed as more of a logical than a coincidental occurrence. One of the most plausible connections between these two contemporary phenomena may be settled within the foundations and main principles of the DCV which naturally offer more practical value for senior managers than "static" frameworks.

Management consultants and practitioners often criticise the detached nature of theoretical research. They do not feel, for example, that research is disseminated appropriately, provides value for their managerial role, or is sufficiently relevant (Starkey and Madan, 2001). In particular, the lack of applicability of static resource-based thinking may contribute to this unsatisfying situation. Nevertheless, to complicate the issue, management research requires a certain degree of scholarly quality *and* must meet the hurdles of relevance (Pettigrew, 2001) and accessibility. These particular criteria often contradict each other and

therefore imply a certain potential for tensions and challenges. Starkey (2001:78) speaks in this context of the "need to engage researchers in new ways of doing research [...] which will require a focus on the distinctiveness of management research and its core identity and on ways of engaging with the world of practice".

3.5 The DCV: its Role and Position

Two critical questions materialise with regard to the specific critique of static views on strategy. Firstly, is the DCV merely an extension of the RBV or will future research reveal crossroads and major differences which render the existing evolutional pathway redundant? And, secondly, how will this process influence the historical meaning of resource-based thinking within the field of strategy? These questions can only be answered through future research over a significant period of time in both particular fields of enquiry and a successful realisation of attempts to clarify the confusion surrounding the theoretical status of such frameworks. Their relevance for a critical view on both perspectives is acknowledged in the course of this study. Tallman (2003:406), however, assumes that "dynamic capabilities or a related model is not the universal theory of the firm, but may offer some useful insights to models of strategy". Partly, this research may offer both an industry-specific application as well as an update of this evaluation, in particular with regard to more recent developments in the field.

Helfat and Peteraf (2003) introduce an attempt to define a "dynamic" resource-based view building on "capability lifecycles" (CLC) with the intention to facilitate a better understanding of one of the major foundations of resource-based thinking, that of the concept of resource heterogeneity. Thus, illuminating the evolution of resources and capabilities may benefit or enable systematic generation of the latter, simply because both abrupt and gradual changes of the external business environments naturally dictate renewal and re-configuration to conserve and maintain this possible source of competitive advantage.

Conversely, it is questionable whether such a descriptive concept offers substantial value for both the academic field of enquiry as a whole and the senior managers of the firm in particular. Is it not the subject to academic consensus and moreover supported through the examples cited within this literature review that sustainability of competitive advantage may not only benefit from, but also depend on, selective processes of rebuilding and renewal of resources and capabilities, particular within certain contexts? Conceivably, in business practice, CEOs might be more interested in prescriptive solutions informing the practical realisation of similar actions. Hence, neither limited foci on close examination of the involved progression points, nor labelling of different stages of this procedure may eliminate the ongoing confusion attached to the capability building exercises themselves.

Furthermore, it appears paradoxical to elaborate on the emergence of a "dynamic" resource-based view of the firm as this is clearly not an accurate description of the current trends within the field. Despite utilisation of this particular terminology by other scholars (Schreyögg and Kliesch-Eberl, 2007, for example), it may be criticised on the basis of its implied hierarchy dominated by the RBV and its simultaneous rejection of the DCV as a relatively separate theoretical entity. Yet, a dynamic view of capabilities may be crucial for comprehension of the resource base of the firm in response to both micro and macro environmental factors. The role of the latter is described in more detail in the remainder of this section. Therefore, it becomes clear that the dynamic capabilities view represents an existing and actively evolving attempt to address the challenges as outlined above.

With regard to external stimuli however, the following aspects require special emphasis. They may constitute competitors' initiatives, normative changes or scientific discoveries and often provide feedback on the effectiveness of the organisations strategic moves (Zollo and Winter, 1999). Their main association with the exercise is a very distinctive role as input, feedback and evaluation units and indication for correctional, reactive changes. One practical example of a company which is continuously forced to develop new capabilities due to macro environmental realities is De Beers in the diamond industry. In this

particular case, the main underlying factors may relate to critical issues mainly in the areas of diamond supply and diamond downstream marketing[16]. As political factors have been subject to massive change and natural resources run out, the company has had to adapt to these new conditions.

This comes in combination with "synthetic" threats and decreasing control and influence on existing mining sites. Furthermore, this example demonstrates that a very strong position in an industry through a monopoly-like position can not always sustain competitive advantage over time. Thus, the senior managerial task consists of thorough understanding and analysis of both external environments and internal resource bases. Neither of them can be investigated in isolation. However, it is nevertheless important to note that external factors may inform the dynamic capability building processes but they do not constitute direct elements thereof. Nonetheless, they should not be employed as retrospective measures of the degree of appropriateness of dynamic capabilities within the organisation. More logically, the future-based nature of macro environmental changes may assist the process and provide important insights for the task itself.

3.6 Evolution and Purpose DCV

Teece *et al.* (1997:509) explain that the development of the DCV flows from a recognition that "strategic theory is replete with analyses of firm-level strategies for sustaining and safeguarding extant competitive advantage, but has performed less well with respect to assisting in the understanding of how and why certain firms build competitive advantage in regimes of rapid change". They offered an explanation for this dilemma which is settled around the notion of path dependence by arguing that it determines both future choices[17] and future "domains of competence" (1997:515). The fact that, according to these scholars, such decisions represent "quasi-irreversible commitments", only further highlights the logical dilemma for the resource-based view.

[16] Research conversation with Ruddle, K. (2006)

[17] The notion of "path dependency" has been discussed earlier within Chapter Two in the context of the RBV and the criterion of "imperfect imitability".

If competitive advantage solely rests on imperfect imitability based on trajectories which chart the future pathway of competence development for the organisation, it becomes very clear that this may adversely affect the organisation's ability to renew capabilities in response to changing environments. This important issue is further explored by Schreyögg and Kliesch-Eberl (2007:914). Accordingly, for strategic managers, any attempt to embark on "dynamisation" of organisational capabilities inevitably leads to a number of complex challenges and implications. If capabilities per se represent "superior ways of allocating resources", then the danger is that capability - rigidity drivers such as path dependency, structural inertia or specific commitments as outlined above may considerably block such action or even prevent its implementation as part of daily routines.

Consequently, steps associated with dynamism themselves, if successfully realised, may diminish and dissolve the strategic power attributed to organisational capabilities in the first place - particularly in the wider context of the RBV. This central problem is particularly emphasised and revisited in subsequent data analysis parts of the thesis. Nevertheless, it appears significant that the concept of capabilities itself bears certain idiosyncratic and endogenous problems for practitioners which should not be ignored: Schreyögg and Kliesch-Eberl (2007:915) explain that "problem-solving activities are not called capabilities unless they have proved to be successful across various situations and organisations are able to reproduce them". Managerial abilities to identify, monitor and repeat relevant routines thus represent perhaps the major basic challenge associated with organisational capabilities; yet, on their own, routines may not complement the nature of dynamic capabilities which are characterised by even further increased complexities.

Hypothetically, the reliability of organisational routines through repetition somehow contradicts the basic notion of dynamic renewal and henceforth represents a possible tension and managerial constraint which needs to be addressed to allow for convergence towards practical applicability. In other words, somewhat paradoxically, focus on organisational capabilities in

combination with decision making processes aimed at capability reproduction may subsequently reverse any positive aspects and outcomes deriving from such pursuits and constitute potential disadvantages for business organisations in rapidly changing environments. To facilitate better understanding of the implications from this complicated relationship, it is necessary to clarify specific details associated with respective challenges.

Furthermore, certain dissimilarities between the main assumptions of the RBV and the DCV emerge. For instance, within the RBV the dominant discourse suggests that achievement of competitive advantage is based on two main assumptions, "resource heterogeneity" (Peteraf, 1993) which, for example, could be based on rarity or value and secondly "resource immobility" (Barney and Hesterly, 2006:77) shaped by the criterion of imperfect imitability which has been discussed earlier. Yet all major sources of costly imitation (in particular path dependency and causal ambiguity but also patents and social complexity to a certain degree) are of an essentially static nature, as for example the existence and implications of competency traps has shown in the past.

Eisenhardt and Santos (2002:143) argue, however, that "in high-velocity environments no specific advantages are sustainable and superior performance occurs by continuously creating temporary advantages". This particular statement has a special impact on attempts to develop frameworks for sustainability based on the existing DCV body of knowledge. The specific role and characteristics of conditions under which sustainability can be achieved are not purely dependent on internal capability building but must be aligned with business realities. Most importantly, however, this is subject to and depends on the specific and ever changing characteristics of the latter. In the majority of industries it may not be achievable at all.

Dynamic environments which have a very strong influence on strategic decision making and hence may affect the development of competitive and corporate-level strategy, are nowadays very common (Eisenhardt, 1989; Stonehouse, Hamill, Campbell and Purdie, 2004). This is also corroborated by Tallman (2003).

> The competitive environment of business will always change as the external environment develops and as other firms adapt to their own changing circumstances (Tallman, 2003:387).

Due to constant turmoil the environment of any organisation will, over time, "move away from the conditions under which the firm's capabilities created competitive advantage".

However, it remains unclear whether the environmental changes are the only factor destroying the competitive advantage or if the failure to sustain it could lie in the capabilities, capabilities configurations or capability building processes themselves - or in combinations of both. This question lies at the heart of the academic discussions about strategic sustainability and is also affected by the difficulties to identify and isolate specific resources or capabilities for development (Pandza, Horsburgh, Gorton and Polajnar, 2003). Furthermore, the dynamic nature of business environments complicates a causal investigation of this issue. Nevertheless, it must be questioned whether the RBV and the DCV contradict each other at this particular level.

Any attempt to answer this question requires acknowledgement of the fact that "dynamic capabilities have commonalities across firms in terms of key features and therefore violate the RBV assumption of persistent heterogeneity across firms" (Eisenhardt and Martin, 2000:1117). In other words, dynamic capabilities *themselves* are not sources of long term competitive advantage which *may* derive from timely exploitation of dynamic capabilities as a tool for resource re-configuration - within certain contexts. This advantage is particularly enhanced when the related resource configurations are combinations of synergistic activities (Collis and Montgomery, 1995; Prahalad and Hamel, 1990). Still, as indicated earlier, the existence of long term competitive advantage across industries remains highly questionable.

3.7 Some Limitations of the DCV

Despite efforts to acknowledge the value of the concept of dynamic capabilities, the absence of a unifying framework to date has resulted in generally sceptical views amongst strategy scholars in the past, although this seems to be changing. This perceived higher degree of acceptance is possibly due to both active research being conducted in many institutions and the ongoing accumulation of important contributions. Nonetheless, it remains difficult to explain the teething troubles of the dynamic capabilities view in a satisfactory way, because its theoretical development seems to be a highly logical consequence of both major limitations of the RBV and other areas within strategic management. Winter (2003:991,994) sees the origin of this scepticism in the "mystery surrounding both the terminology and the phenomenon which arises partly from linking the concept too tightly to notions of generalised effectiveness at dealing with change and generic formulas for sustainable competitive advantage".

Yet, in particular, this criticism may similarly apply to strategy research in other areas and is a general risk of the management discipline. It is even further amplified by the nature of the subject of strategy. It attempts to link theory with practice and is very complex. Faulkner and Campbell (2003:4), for instance, describe it as a subject "about the future, which is unknown and unknowable". On the other hand, Wiltbank, Dew, Read and Sarasvathy (2006) name the phenomenon "non-predictive strategy". Such statements reinforce and clarify the complexity of strategy as a subject of study and research and may represent one possible explanation for the numerous appearances of formulae-like approaches to strategy implementation in the literature. In addition, certain contradictions and tensions in the existing body of knowledge (as demonstrated earlier) may only reflect the complexity of the phenomenon.

3.8 The Wider Context and Future Research DCV

Thus, it can be concluded that the dynamic capabilities research tradition suggests that "a firm can develop superior capabilities through learning mechanisms, including repetition, experimentation, and even the analysis of

small mistakes" (Piccoli and Ives, 2005:751), a similar view to Rodriguez *et al.* (2002:140) below.

> Companies have to develop new resources, capabilities and activities for the acceptance of the idea of scarcity of natural resources and the co-responsibility between businesses and society for the development of social resources to give rise to persistent competitive advantage.

In terms of the DCV's wider context and meaning within research communities, in particular with regard to the short-term future, it is interesting to acknowledge the empirical evaluation of Acedo *et al.* (2006:633), "the dynamic capabilities approach appears as a nexus between the classic works from the RBV and the most recent studies from the KBV". In other words, they argue that the knowledge-based view and the resource-based view are characterised by a theoretical distance which mainly derives from the more positivist and economic history of the RBV perspective.

According to this, and similar arguments, the DCV acts as a catalytic force which draws from both sources and filters theoretical contributions through its own characteristics. Yet, as discussed earlier, a summary of reviewed papers results in the assumption that the DCV is a very logical, progressive continuation of resource-based thinking, whilst the latter has clearly benefited from more recent frameworks placed within the KBV.

In terms of size and research outputs however, the DCV is still in its infancy and therefore direct comparisons and evaluations seem inappropriate at this juncture. What results from the literature review above is the assumption that understanding how to create new sources of competitive advantage and in particular "ex ante" (Cockburn, Henderson and Stern, 2000) rather than retrospectively or through case-specific deductions, may be the central question for future strategy research. As the process-based nature of dynamic capability building relies heavily on innovative actions, dynamic capabilities may provide substantial insights concerning realisation of competitive advantage. A consensus is emerging that the contribution of DCV-based research incorporating existing knowledge in other areas has a far-reaching and positive

effect on further comprehension and explanation of this central yet unsolved problematic issue of strategy research, namely the quest for competitive advantage. This is confirmed by Buenstorf and Murmann (2005) who particularly relate the importance of investigation of sustainability to accumulation, maintenance and re-configuration of capabilities within dynamic environments.

Definition for dynamic capabilities and the research framework

In line with the review of selected research and academic papers in the subject area in the context of this literature survey, a definition for dynamic capabilities within the research framework is presented in the following.

Dynamic capabilities are arguably the ability of the organisation to develop, apply and monitor constant alignment or re-launching of capabilities; not in response to dynamic realities but capable of the challenges presented by business practice. Thus, dynamic capability building is a consistent, continuous and demanding procedure which, due to its natural complexity, principally provides barriers to observation and imitation but may allow for basic case-specific inferences.

Following on from this position, the DCV does not present secret formulae for achievement of competitive advantage but appears to act as a favourable point of origin for further research and theoretical developments. Simultaneously, it may provide valuable insights for the challenging task itself.

An additional important reason for the narrow focus on dynamic capabilities derives from its close links to methods of external growth such as mergers and acquisitions (e.g. e Cunha and da Cunha, 2006). M&A are likely to potentially represent examples of very pure dynamic capabilities building processes and are therefore suitable instances for closer examination of both their real life implementation and integration into wider corporate-level strategies.

Consider Microsoft as an example. They continuously acquire small competitors and gain competitive advantage through subsequent capability building processes, taking advantage of innovative resource combinations. Yet, they do not simply integrate a firm into their own operations but attempt to exploit *and* transform the existing and newly acquired resource bases to achieve the optimum benefits from their acquisitions and this represents a common feature of their respective growth operations. Thus, a theoretical focus on the major assumptions from the DCV area is essential for and informs a further central element of the second part of this review of the literature, mergers and acquisitions.

Within this chapter, the following issues were discussed:

- Existing definitions of dynamic capabilities have been introduced
- A particular definition for this research framework has been developed
- Theoretical roots of and more recent external forces leading towards dynamic capability-based thinking have been explored
- Special emphasis has been put on both links with and contradictions to resource-based thinking and the role and possible future research in the area in the wider context of strategic management

The purpose of this study requires introduction and investigation of an additional important aspect. The actual dynamic capability building processes are not part of the list above. Nevertheless they represent a critical theoretical element and the central topic within this thesis and are therefore explored in the following.

3.9 Dynamic Capability Building

It remains unclear why the processes associated with the general terms "dynamic capability building" or "dynamic capability building exercises" have received comparatively little attention by scholars to date; in a certain way they may be labelled the "black box" of the DCV. Despite growing importance of the latter area as a whole in the wider context of strategic management, as

highlighted previously, this broad issue remains somewhat of an enigma of dynamic capabilities-based research. Although this may not be surprising due to the complexity of the concept itself and its application to business reality, the following two points must be emphasised.

- Unlike the quest for competitive advantage and its sustainability, this particular issue has a general *and* a contemporary significance for the subject discipline. Although SCA is still subject to exploration within a wide array of research communities, it is questionable whether its investigation provides a similar sense of urgency - in particular with regard to the nature of dynamic environments as described earlier and the deriving possible negative implications concerning its existence. It may need reconsideration based on evidence gathered in the light and realities of the business worlds of the present.
- Secondly, dynamic capability building appears to be the central element of a visible theoretical gap due to fairly low research output to date.

Although direct comparisons appear inappropriate, this is clearly not the case with regard to SCA and for this reason the DCV seems to be a logical but not an exclusive starting point for further exploration of both issues and simultaneous advancement and progression of the field. Simply put, knowledge about dynamic capability building processes may represent an important contribution towards the issue of SCA *and* act as testimony of a possible paradigm shift of strategy research as described above.

A review of academic literature demonstrates, however, that a number of researchers provide accounts of existing and relatively recent attempts to address this gap in the literature. Kor and Mahoney (2005), for instance, emphasise the need for future researchers to uncover industry-specific relationships between resource deployments and firm-level performance. In their paper, a first step towards this goal is characterised by a clear focus on firm investments in research and development (R&D). As a result, their findings clearly corroborate the existing view of the RBV that senior managers with both access to firm-specific tacit knowledge and internal resource bases may have an

impact on deployment of these resources in rent-generating ways. Still, it must be asked whether the DCV can have a fundamentally deeper impact on the debate than an empirically supported transfer of existing knowledge about resources on the related concepts of resource-deployments or capabilities[18]?

Ethiraj, Prashant, Krishnan and Singh (2005) propose that capabilities are context- or industry-specific and that any research in this area requires conceptualised investigation. In fact, conceptual work on the notion of organisational capabilities has tended to outpace empirical research in the past due to the difficulties of implementing performance measures and to identify and define significant capabilities and their individual deployment (Haas and Hansen, 2005; Eisenhardt and Martin, 2000).

The fact that generalisations across industries result in high abstraction levels and therefore do not fulfil the criterion of managerial guidance and applicability as one of the underlying foundations of DCV purpose and evolution certainly supports this notion.

It can be observed, however, that research concerning dynamic capability building within certain competitive environments or at the firm-level is far from complete, partially because many scholars (Schroeder, Bates and Junttila, 2002; Makadok and Walker, 2000; Brush and Artz, 1999; Silverman, 1999) have focussed exclusively on the measurement of capability-related outputs and implications for rent-generation.

Nonetheless, the question arises, whether the focal point of current academic enquiry in this area should really be on performance and value measurement in combination with the impact on achievement of competitive advantage. Although some of these papers provide valuable insights on industry-specific factors, the building processes themselves and their evolution remain largely unexplored - with both negative implications for senior managers seeking

[18] Amit and Shoemaker (1993) suggest that capabilities are defined by the firm's capacity to use its resources in coordinated ways to achieve desired results. Therefore a simple application of the resource-based view on capabilities seems inappropriate and does not grasp the nature of the DCV with regard to its evolution.

prescriptive guidance and the ability to build on such contributions through further theoretical research.

Nevertheless, it appears that this shortcoming has become more and more visible over the past three years and, as part of a seemingly ongoing development has gradually resulted in increased research outputs and influential additions to the existing body of knowledge in the field. This observation applies to both conceptual theories of capability building and initial industry applications.

With regard to the building exercise, in particular the contributions of Teece (2007), Lillis and Lane (2007), Pitelis and Verbeke (2007) as well as Augier and Teece (2007), as selected examples, focus on theoretical progression of the concept of dynamic capabilities and related subtopics. On the other hand, recent publications by Green *et al.* (2008), Oliver and Holzinger (2008), Wu and Wang (2007), Harreld, O'Reilly III and Tushman (2007) as well as Lee and Kelley (2008) represent attempts to transfer these abstract notions to a variety of business realities. Despite these efforts, it is important to note that any generalisations *across* industries may appear premature at this time.

This is due to three reasons. Firstly, the incompleteness of both theoretical and practical publications does currently not allow for universal assumptions about the DCV. Secondly, as further explained in subsequent chapters within this thesis, artificial distinctions between "practical" and "abstract" research in this area may contradict the foundations of the concept itself. Thirdly, it appears necessary to emphasise that even a more mature stage of DCV research in the future would *not* eliminate the need to clearly justify generalisations. These are barriers to attempts to minimise complexities which naturally arise from specific situations and could potentially widen gaps with business realities. Selective focus on contexts may be more logical. Still, the whole debate highlights a relatively fundamental danger in strategy research and practice: the temptation to develop recipes for organisational success despite their limited relevance for narrowly defined business areas.

Rosenbloom (2000) chose to approach the issue of capability building via its relation with path dependent decision making at the top level of the organisation. He presented a case study with a focus on the history of NCR Corporation to outline evolutionary adaptation of core products in the context of their entry into the computer industry. Yet, Ethiraj *et al.* (2005:29) suggest that insight into historical development and evolution of capabilities "do not permit the estimation of significance and value of capabilities". This position can be rejected for a number of reasons. Due to the developed definition of dynamic capabilities, such studies *allow* illumination of the underlying foundations of a firm's success, mainly because the latter may depend on successful construction and adaptation of capabilities over a significant period of time. Additionally, their existence alone could potentially affect the capability building exercises - both in positive and negative terms. Dynamic capabilities are not static. Nor is the concept of competitive advantage and therefore the statement by Ethiraj *et al.* (2005) is misleading.

Moreover, the choices made at the firm-level affect not only dynamic capability building processes but also impact firm performance, regardless of the specifically chosen or employed definition of the latter. Therefore, disentanglement of historical case accounts and disaggregated measures of achievement of competitive advantage appear inappropriate in the case of dynamic capabilities with their distinctive and particular nature as explained above.

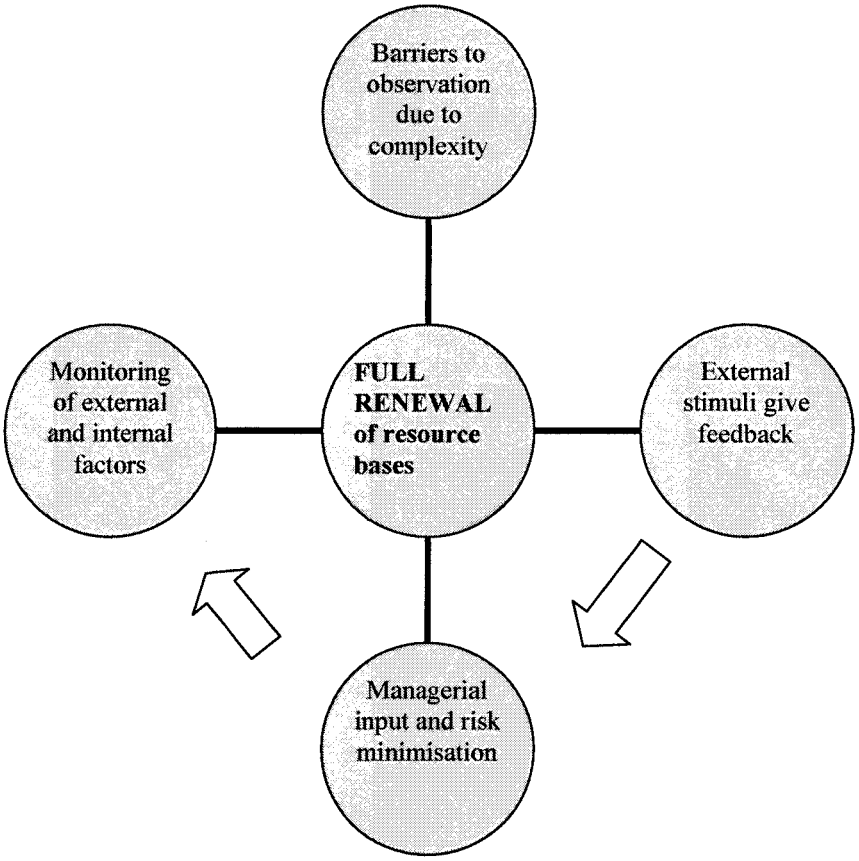
Dynamic capabilities cannot be built by imitation (Miller, Eisenstat and Foote, 2002). Therefore, capability building is principally an organic exercise and, in very simplified terms and mainly derived from the literature survey, may require a three dimensional approach which incorporates the following basic elements:

- In-depth, case-specific and path dependent knowledge about existing internal resource bases across Strategic Business Units (SBUs) and their value within individual competitive environments
- Continuous consideration of relevant macro environmental issues
- Transformation of resources into capabilities through realisation of respective internal and process based activities

In particular, the first two aspects represent well known elements of strategy formation building on internal and external analysis. However, their prominent position and appearance within this list is justified through the strong requirement to illustrate that dynamic capability building can not be exercised in isolation and is highly dependent on these basic variables. The three dimensions may be seen as a strategic triangle with constant interaction. As the previous sections have shown, the principal outcome of this process is *not* achievement of competitive advantage but survival within the identifiable industry.

However, the organic process may be enhanced through addition of other capability building modules such as access to new resource bases at SBU level or acquisition of external objects. This additional step may result in increased inimitability and perhaps temporary competitive advantage and will be discussed in more detail in the ensuing chapter in particular in the context of mergers and acquisitions. Certain restrictions may nevertheless apply to dynamic capability building in connection with the latter category of growth - if dynamic capabilities represent barriers to imitation, then a number of issues arise in connection with their identification, transferability and compatibility within M&A contexts and require particular attention. These and related issues are now explained.

Figure 1 Main Elements of Traditional[19] DC Building Frameworks



Source: Author

With regard to the firm-specific and purely organic dynamic capability building, both development and content require special attention. In their examination of technological capability acquisition, Ahuja and Katila (2004) conclude that evolutionary processes which address idiosyncratic circumstances possibly result in unique responses. Once again, their study confirmed that the issue of dynamic capability building is subject to individual innovation search paths. In other words, their content is tied to thorough understanding of firm-specific resource pools and their past development over time in addition to specification of origin and allocation of roles for potential future utilisation. Thus process and content can not be clearly separated in this particular setting.

[19] As discussed in this literature review part of the thesis, existing DC frameworks show particular deficiencies with regard to level of detail and practical applicability due to high abstraction levels

Economic and strategic value of existing capabilities can often only be determined through knowledge about the wider context and implications of perishable exogenous factors; for example, continuous assessments of abstract "zeitgeist" related issues. On the other hand, anticipation of external trends in itself is a task which somehow heavily relies on incorporation and further theorisation of the latter in an appropriate manner. This statement is nevertheless problematic given the existence of major limitations such as the earlier mentioned human inability to predict the future. Therefore, it is important to recognise a high degree of complexity as an independent variable in pursuit of respective building processes. The selection of a single-case study design for this investigation is a direct consequence deriving from this particular theoretical observation and is justified in more detail in Chapter Five.

3.10 Strategic Leadership in the Light of the DCV

An additional, potentially influential, aspect within the dynamic capability building framework is the role of strategic leadership. Due to the nature of dynamic capabilities, the two issues may be regarded as an interwoven entity and not as entirely separate units. The following section highlights the main implications for strategic management through a special emphasis on dynamic leadership capabilities. The central argument is the requirement to accept multi-disciplinary approaches to leadership development at the senior level through acknowledgment of recent paradigmatic trends within strategy research and practice, as outlined earlier.

Bakhru (2007) puts special emphasis on the fact that any process perspective as determined by the defined nature of dynamic capabilities requires a clear understanding of the managerial role in relation to development of required activities; despite the fact that scope for managerial manipulation may be fairly limited in certain cases, Montealegre (2002:516) states in this context that "the prevailing wisdom seems to be that capability development is a lengthy, complex process influenced by multiple organisational dimensions". These

actions are observed, monitored, directed and orchestrated from the senior level, hence the link with strategic leadership as briefly revisited below.

For many decades, a rationalist view of strategy has made clear distinctions between strategy formulation and implementation. This has led to the widespread view amongst practitioners and research communities alike that strategy formulation is a relatively easy task for senior managers, mainly constituting of development of vision and mission statements or other future aspirations; they are closely related to Kotter's (1990) understanding of leadership as the process of setting the future pathway of the organisation through a distinctive set of measures which are described in more detail in the following. As a result of this prevalent "classic" view, the term "strategic leadership" has been mainly associated with communication of such accomplishments to employees, customers and stakeholders. Similar approaches are often characterised by descriptions of differences between leadership and management, development of vision statements or definitions of leadership styles (e.g. Finlay, 2000).

Conger (1992:18), for instance, concludes that leaders may be defined as "individuals who establish direction for a working group of individuals, who gain commitment from these group members to this direction, and who then motivate these members to achieve the direction's outcomes". However, apart from appearing somewhat unspecific, such a position does little to grasp business realities and the leadership challenges presented within various contexts. Leadership requires a different, more balanced focus. Perrott (2007) observes that increasingly turbulent environments result in more frequent emergence of strategic challenges. As a result, both scanning procedures and capability building process need to be established, often simultaneously and hence incommensurate with more established distinctions.

Kay, McKiernan and Faulkner (2003:39) describe the "traditional" and often implied divide between strategy and implementation as a "misconception". They add that "in the hands of a skilled strategist formulation and implementation are inextricable", a view supported by Hrebiniak and Joyce

(2005). As discussed in this thesis, strategic management is not exclusively about achievement of sustainable competitive advantage or building of core competencies through application of prescriptive, conceptual tools. It's a subject about the unknown future (Faulkner and Campbell, 2003) and therefore its main purpose is closely linked with the skills of senior managers and their understanding of both strategy content and processes. This is confirmed by Helfat *et al.* (2007:63) and their definition of the central question of current strategic leadership research: "How do executives aid or hinder the creation, extension, and modification of a firm's resource base?"

Taking Apple Inc. as an example, in recent years, this business organisation has created an entire industry, emerging from the development of, and revolving around, the original iPod music player and its next generation updates, thus demonstrating a unique ability to respond to strategic challenges. It is important to note, however, that this particular success story is no coincidence. Quite the opposite, it appears to represent the outcome of both anticipation and responses to macro environmental, mainly technological and social "zeitgeist"-related changes and incorporation of the latter factors and their continuous mutations into development of business strategies. The particular transformation described above is closely related to the leadership skills of Steve Jobs. Neither industry-specific or tacit knowledge alone nor clarity about existing resources or core competencies within the corporation is sufficient in this context. Instead, it is the ability to fully comprehend past and present and more importantly the unique position of the organisation in terms of the wider cycles of time *in combination* with resource creation and rebuilding of capabilities. For this reason understanding the impact of unique historical positions and path dependencies is a prerequisite of strategic leadership. Failure to comprehend the former may result in the inability to respond to a variety of demands deriving from environmental uncertainties.

Stadler (2007) describes the outcome of a longitudinal, historical study in which those companies that were able to survive over prolonged periods of time were led by top management teams with relatively average managerial cognition skills, but the ability to adapt early to and almost "predict" external changes.

The fundamental question arises whether good leadership represents little more than wishful thinking if these basic conditions are not met.

An example is a recent publication by Ancona, Malone, Orlikowski and Senge (2007:94). In appraisal of the "incomplete leader", they present and define four capabilities essential to leadership, such as "sensemaking", "relating", "visioning" and "inventing". In other words, general aspects such as social skills, networking, corporate renewal and vision statements are highlighted as critical success factors. Additionally, they explicitly acknowledged the "sheer complexity and ambiguity or problems [...] in the context of radical financial, social, political and technological changes" and described complete leadership as a myth. Still, it is questionable whether their list of capabilities addresses the leadership challenges as mentioned above. It seems both illogical and inappropriate to describe emerging and accelerating issues facing today's senior managers and corporate leaders but to simultaneously present outdated solutions. Different circumstances require different approaches. Thus, a clear link with the concept of dynamic capabilities becomes apparent and indirectly confirms the main focus of this thesis.

Thorough understanding of the role of the boundaries of the firm may represent a prerequisite for recognition of the conceptual limitations of strategic leadership as represented through academic publications to date. For this reason, an "outside-in" approach to the theoretical issue is suggested in order to avoid an exclusive focus on micro level aspects of leadership. An example for the latter is a recent study by Spreier, Fontaine and Malloy (2006:77). They list six styles of leadership deriving from individual motives at the executive level, these being "directive", "visionary", "affiliative", "participative", "pacesetting" and "coaching". According to their study, "the most effective leaders are adept at all six leadership styles and use each when appropriate".

Although this action may allow for company profiling and improvement of firm-specific work climates, it is questionable whether selection or building of an "effective" leader according to this particular definition enables an organisation to address two critical issues - purpose as outlined in a company

vision and constraints associated with survival. Naturally, this leads to a simple yet critical question: What is the definition of successful leadership? The development of a holistic framework for leadership requires a genuine attempt to answer this question, both across research communities and subject disciplines and beyond the scope of this study. From a strategic perspective, Spreier *et al.* (2006) do perhaps not sufficiently acknowledge the wider contexts of the roles of individual leaders, a step which could easily result in diminishment of the practical value requested by the target audience as defined above.

For the reasons aforementioned, it is not advisable to analyse strategic leadership in complete isolation from the wider context of the complexity of tasks associated with these functions and a thorough understanding of the contemporary issues facing business organisations. It is important to allow them a central position within a revised future model of skills required at the senior level of the organisation. Consequently, the notion of "dynamic leadership capabilities" should be put on the agenda in strategy.

Dynamic leadership capabilities represent an extension of strategic leadership through addition of an emerging discourse within strategy research about factors facilitating survival within unstable and unpredictable environments. In other words, strategic leadership and strategic management are linked and complement each other on a causal level. This is confirmed by current research by Abdell (2006:310), for instance, who observes that "change is redefining both strategy and leadership, with the result that the two are looking increasingly the same". In an analogy, strategy and leadership are two sides of the same coin. The following observation may provide an explanation for this phenomenon.

In an increasingly dynamic and changing world, leadership challenges become more complex, mainly because of the requirement to align business strategy simultaneously with external changes and effective internal leadership. Relatively recent paradigmatic changes within strategy research as previously identified appear to reflect this theoretical position. This step may facilitate a

holistic understanding of the concept and allow development of a framework which explains the notion of dynamic leadership capabilities through links of general strategy research with contemporary notions of strategic leadership and as such increases awareness of the abstract conceptual issues associated with leadership at the highest level of business organisations.

There are three major criticisms of current strategy research in general and resource-based approaches in particular (Sirmon, Hitt and Ireland, 2007). These are characterised by the following elements or oversight thereof:

- Dynamism
- Environmental contingencies
- Role and perspective of business leaders

In turn, any attempt to approach the issue of strategic leadership should acknowledge the existence and scope of the first two aspects in order to avoid generation of relevance-loss as described earlier. This is in line with the argument that leadership is best analysed within the wider context of contingency theory (e.g. Lynch, 2003). In other words, strategic leadership is dependent on the strategic issues facing the organisation at a specific point in time. Nevertheless, although leadership is case- or industry-specific, a trend towards more complexity becomes apparent within a variety of environments (Ancona *et al.*, 2007) and naturally represents a fundamental leadership challenge of a relatively general nature. Helfat *et al.* (2007) stress that the nature of managerial action may vary with context and for this reason leadership studies should acknowledge the importance of history and routines, organisational resources and capabilities, and competitive dynamics. In other words, these factors should not be ignored in the course of studies of the role of executives as their relevance does not diminish through the exercise of conducting "traditional" leadership research itself.

Identification and understanding of potential for dynamic capabilities building provides an important contribution towards practical knowledge of combination of external and future-based factors with more contemporary resource-based

thinking. These processes are a prerequisite for successful leadership and not elements of the exercise itself. Although the factors below can not be fully addressed within the narrow scope of the current study, reflection on the literature points towards the following insights. The requirement to understand the existing theoretical knowledge base of the field in general and peripheral, yet influential factors, supports this emphasis.

- Additional research is required which represents attempts to link dynamic capabilities analysis and building with leadership responsibilities and purpose. This may result in a wide range of contributions to the framework of dynamic leadership capabilities; a theoretical focus on associated building processes, the current "black box" of the DCV, is strongly encouraged.
- The complexity of these processes is reflected by the variety of possible research avenues which may shed light on dynamic capabilities but simultaneously advance the knowledge base and allow important insights of the field.
- Accelerated changes result in the requirement of revised approaches to key conceptual issues within strategy and management theory; this process should incorporate current DCV knowledge and link it with more traditional, people-focussed approaches as reflected through research outputs of other areas within business and management.
- The main rationale of this exercise is ideally determination of executive behaviour in dynamic environments, a task which is relevant for both research communities and practitioners and might fill existing gaps and unresolved issues of leadership studies.

The role of management-initiated practices (as described in greater detail by Gooderham, 2007) in the context of dynamic capability building and analysis of external changes appear to become increasingly inseparable. Additionally, this focus may result in a further step towards retrospective evaluation of resource-based theories of the firm and clarification of their specific role and position within strategy evolution and pedigree.

This chapter has demonstrated both the emergence and the rising importance of dynamic capabilities for the subject discipline of strategic management. Furthermore, it has highlighted potential managerial confusion, emphasising the need to investigate how theoretical ideas such as the DCV translate into practical solutions. In the following, DCV knowledge will be initially applied on a field relevant for the research objectives, mergers and acquisitions.

CHAPTER 4: MERGERS AND ACQUISITIONS IN THE CONTEXT OF THE DCV

4.1 General Background

> The global environment of businesses has made it increasingly difficult for firms to sustain their competitive advantage on their own, prompting the accelerated growth of collaborations between independent firms (Das, 2006:1).

The ongoing trend towards further consolidation continues to characterise the steel industry, in particular within the Russian Federation (Stewart, 2007), as explained in Chapter One. In the last decade M&A activity throughout the world "accounted for approximately 70% of the total value of inward investment in developed countries, making mergers and acquisitions a more important component than Greenfield investments in foreign direct investment" (Rodriguez-Pose and Zademach, 2003:1895).

According to Colgate (1998:80), "today's globalised markets are a breeding ground for conglomerations where mergers and acquisitions are becoming increasingly popular as a means of growth and for firms to survive, therefore, it has become necessary for them to keep ahead of competitors and predators by differentiating themselves which can possibly be achieved through creating and sustaining of competitive advantage". Despite their popularity, mergers and acquisitions continue to be subject to intense academic debates, in particular with regard to their general success rates, contributions to achievement of competitive advantage and role for dynamic capability building exercises.

This chapter provides the theoretical background and knowledge base on this issue in order to facilitate exploration of the real life phenomenon in subsequent chapters. Special emphasis is put on links with dynamic capabilities.

4.2 Overview M&A

Although many forms of collaboration exist and are described in the literature in great detail, the most often cited and discussed methods of external growth are M&A and strategic alliances. Ireland, Hitt and Vaidyanath (2002:413) stated that the latter "are an important source of resources, learning, and thereby competitive advantage [...] firms seek access to resources through alliances". Due to the fact that in the course of strategic alliances "two or more organisations share resources and activities to pursue a strategy" (Johnson *et al.*, 2005:349), it becomes clear why the related but nevertheless different and more complex phenomenon that mergers and acquisitions[20] represent "continues to be a highly popular form of corporate development and has attracted substantial interest from a variety of management disciplines over the past 30 years of a broad range of management disciplines encompassing the financial, strategic, behavioural, operational and cross-cultural aspects of challenging and high risk activity" (Cartwright and Schoenberg, 2006:1). Furthermore and in comparison to other methods of external growth, they have a number of advantages: for example, "they provide instant access to a share of the target market and basic assets, physical resources, routines, and capabilities are in place" (Tallman, 2003:397).

Lynch (2003:482) associates acquisitions with the "particular assets of the company such as brands, market share, core competencies and special technologies". The acquisition of knowledge and other intangible resources often underlies merger and acquisition strategies (Gupta and Roos, 2001). Consider the acquisition of Demag Mobile Cranes through Terex Cranes in September 2002. Terex Corporation gained access to important technology and combined it with their own resource bases. Subsequently the business organisation reached market leadership in the area of lattice mast cranes and second position in the area of telescope cranes in 2005. Still, it is unclear

[20] The terms merger and acquisitions are used interchangeably within this thesis. The underlying reason for this is in line with the argument of Schoenberg (2003:96) who states that, "while the terms acquisitions and merger do have precise meanings in certain contexts, for example legal structures, they generally share common motives and criteria for success". This confirms the position of other strategy scholars such as Tallman (2003:398) who argues that "mergers and acquisitions are essentially the same".

whether this particular M&A activity and achievement of such a dominant position in the crane building sector are related to generation of dynamic capabilities or subject to other factors. As the previous chapter on dynamic capabilities has shown, existing academic literature fails to answer such and similar questions to date, i.e. to explore mergers and acquisitions from a DCV perspective.

A notable exception to this and a strong indicator for required future studies is the publication by Helfat *et al.* (2007) which attempts to explain the phenomenon within the wider DCV concept. Nevertheless, detached from the dynamic capabilities view, M&A represent an area within the subject discipline which has been subject to extensive research within a number of research facilities. Schoenberg (2003:95), for instance, defined acquisitions as "the purchase by one company, the 'bidder', of a controlling interest in another company, the 'target'" and adds that once the acquisition is completed the bidding company controls all of the assets, both tangible and intangible, of the target company. Both selected definitions emphasise possible access to resources through M&A activities. This particular observation triggers a number of issues closely related with the DCV.

Even so, it is of preliminary importance to acknowledge the fact that M&A can be considered from different angles. Haspeslagh and Jemison (1991), for instance, identified three major schools of thought within M&A research:

- Organisational behaviour school
- Capital markets school
- Strategic school

Although no academic school of thought can claim to provide a complete or mutually exclusive approach towards M&A and inter-relations and inter-connections must be acknowledged, this study has investigated the phenomenon from the strategic point of view in accordance with the overarching research questions as stated earlier. Other authors distinguish between different types of M&A transactions. Milman, Mello, Aybar and Arbelaez (2001:327), for

instance, stated that "there are three basic categories (1) asset acquisition, (2) mergers, and (3) stock acquisition". Following this definition, the major differences are legal aspects and operational consequences deriving from either action. However, such a line of argument appears risky for the following reason: given the fact that legal factors, for instance, differ widely between countries and in all three cases ownership of assets is affected.

On the other hand, some scholars differentiated between three streams of enquiry "within the strategic and behavioural literature, which focus on the issues of strategic fit, organisational fit and the acquisition process itself" (Cartwright and Schoenberg, 2006:1). Although such distinctions appear useful for analytical purposes, the question arises whether they actually address the "real" nature of mergers and acquisitions. These are usually complex phenomena and often determined and affected by a number of factors which can not always be examined in complete isolation.

This thesis mainly focuses on the strategic aspects of M&A, and the combination of, if classifications are possible, intangible resources and the exploration of the implications of attached characteristics for the complex tasks associated with dynamic capability building. It must be mentioned, nonetheless, that research on mergers and acquisitions often approaches the subject from fundamentally different angles and rational problem definitions. For example, a number of studies are supported by empirical evidence of performance losses and value destruction post-acquisition.

Generally confirming this observation, Sudarsanam and Mahate (2006:7) note that "many studies evidence long-term value losses over two to five years" and come to the conclusion that mergers and acquisitions "are value destroying for acquiring firm shareholders because there are no synergies or these synergies are not realised or the acquirers overpay for their acquisitions". Such a view is congruent with traditional research emphasising the high failure rates of mergers and acquisitions (Porter, 1985; Ravenscraft and Scherer, 1987; Kay, 1993; Selden and Covlin, 2003).

Accordingly, Coffey, Garrow and Holbeche (2002) argued that synergies projected for M&A are not achieved in 70-80% of cases. A good example is WalMart: they had a strong position in many parts of the world and were simultaneously very clear about their resource bases and sources of competitive advantage which were mainly centred on the areas of supply chain architecture and process management[21]. Nevertheless, they failed to establish a strong position in the German retail industry through mergers and acquisitions and were ultimately forced to withdraw from this geographical market completely in 2005. Mayer-Sommer, Sweeney and Walker (2006:4), whose study solely focussed on mergers and acquisitions in one industry, provide an example set within a different competitive environment and state that "despite the large number of bank mergers over the past twenty-five years, academic studies have failed to produce consistent evidence of value enhancement, cost savings, and economies of scale for acquirers".

Even so, this and similar general statements from academic researchers and practitioners must be treated with some caution. Most studies focus exclusively on financial indicators to evaluate success or failure, lack a clear definition of "failure" and causal evidence that only the M&A activity was the underlying reason therefore. Additionally they neglect a clear and critical analysis of potential for resource- or capability-based realisation of competitive advantage. This is confirmed by Schoenberg (2006:361) who acknowledged that "the choice of performance measure has long been a difficult issue facing researchers".

Existing research [concerning M&A] "remains incomplete in some way" (Cartwright and Schoenberg, 2006:4) and "changes to both M&A theory and research methods may be needed" (King, Dalton, Daily and Covin, 2004:188). Thus, analysis and evaluation of M&A activities remains very complex, industry- and case-specific. Nevertheless, one particular aspect must be emphasised - neither performance of mergers and acquisitions, nor their role for achievement of competitive advantage, should be the most critical issues of

[21] Research conversation with Ruddle, K. (2006)

academic enquiry in this context. Conceptual insights based on the DCV may allow exploration of factors which may rest within business organisations and exceed empirical or longitudinal investigation of failure rates. In order to introduce some examples of research outputs examining the latter and to demonstrate the nature and content of such studies, the following section discusses the issue of "performance" within the wider M&A context.

Performance

Earlier in Chapter Two, sustainability has been described as "a measure which describes the potential of an organisation to maintain or improve its competitive position in the eyes of its customers and shareholders while having the ability to act and react within changing competitive environments" (Chaharbaghi and Feurer, 1994:52). Thus, the competitive position *and* the inability of competitors to create similar value (Barney, 1991) as well as other currently unknown factors may affect the realised sustainability. Naturally the question arises whether both access to resources and the latter's utilisation in capability building through mergers and acquisitions allows business organisations to anticipate developments within external environments and how these processes may affect the attainment of threshold capabilities or even their transformation into unique or inimitable factors. These questions are at the heart of this doctoral study. Nevertheless, it is important to clarify that, according to the literature survey conducted to date, it is unlikely that value creation through mergers and acquisitions represents measurable primary objectives of the action itself. Conversely, increased value may represent the positive fall-out of unique resource combinations or capability configurations.

Therefore purely performance-focussed approaches towards the phenomenon appear somehow inappropriate as causal relationships and path dependent factors require special attention in this context. Because it is impossible to predict the future it is also extremely difficult to allocate performance changes to a singular event, such as realised acquisition activities. However, as explained below, this issue is not the main focus of this study but is nevertheless important for evaluation of existing knowledge in the area.

With reference to the earlier statement that M&A will be discussed from a strategic perspective, the present study does not examine traditional literature concerning performance of mergers and acquisitions. Nevertheless, such studies play a certain role due to their implications for the development of a framework for sustainability as described above and for this reason a number of selected, influential publications are reviewed in the remainder of this chapter to provide a more balanced introduction to the general issue.

A study led by Rovit, Harding and Lemire (2004:18) in association with a global management consultancy involving a total of 1,693 large publicly owned companies in the United States of America and many European countries over a 15-year period came to the conclusion that "the companies most successful at creating long-term shareholder value tend to be frequent, steady acquirers that maintain a constant program of transactions throughout both economic busts and boom times". This is explained by "experience, organisational capabilities and institutionalised M&A processes". In this particular paper, the success of deals instead of performance of acquirers over the long term have been investigated through measures such as total return to shareholders minus the average total shareholder return for the acquirer's relevant sector index which subsequently compared an acquirer's stock performance with that of its peers - from one month before the announcement of a deal through to 12 or 24 months after the announcement. Although the scale and time frame of the study makes it quite special, a large number of similar studies "measure the short-run stock performance of the acquirer, the target or the combined entity surrounding the acquisitions announcement or long-run abnormal performance relative to non-acquiring peers of the acquiring firm" (Bouwman, Fuller and Nain, 2003:9). Nonetheless, further financial measures of value creation exist such as profitability and cash-flow performance.

Review of existing literature reveals that few studies so far have evaluated performance of mergers and acquisitions through development, deployment and application of a framework for sustainability of competitive advantage or from a DCV perspective. Naturally, such evaluations require thorough case analysis

and clearly presuppose identification of context-specific factors which may also affect the success or failure of the individual actions. This represents one of the key criticisms of financial evaluation processes of M&A activities such as the example described above by Rovit *et al.* (2004). This is due to the fact that they ignore a number of important factors.

Firstly, existing or newly combined resource bases and subsequent generation of capabilities may strongly differ from peer companies or top competitors who did not undertake similar steps of external growth but are often employed within studies as means of comparison. As a result, deductive generalisations concerning M&A performance based on comparisons may fail to recognise and identify the dissimilar starting positions. Secondly, the complexity of the phenomenon must be sufficiently acknowledged. Evidence is, for instance, the earlier described investigation of mergers and acquisitions from various possible angles (Haspeslagh and Jemison, 1991). M&A represent a major change in organisations which, from a strategic perspective, leads to an entirely different resource pool available to senior managers.

Additionally, the potential for intelligent resource combination and as such capability building in alignment with external changes appears unexplored to date. Some well known attempts (e.g. Prahalad and Hamel 1990; Hamel and Prahalad, 1989) have mainly focussed on the development of technological core competencies across the diversified corporation, partly linked with or as a result of M&A activities, and not giving sufficient attention to macro environmental influences and respective adjustments on a continuous basis. Furthermore, their impact on shareholder value creation is not well discussed. A gap in the literature, therefore, becomes apparent and derives mainly from the contrary nature and objectives of the evaluation types described above.

Synthesis of M&A and sustainability

As a starting point, an initial attempt to synthesise the phenomenon of M&A with existing frameworks for sustainability is presented below. This precedes an investigation of their role for dynamic capability building. Earlier, Barney's

(1991) understanding of the resource-based view has been discussed, including the strong emphasis on resource heterogeneity and imperfect mobility as pre-conditions for competitive advantage. Lavie (2006:643) states that "resource heterogeneity is tied to the conceptualisation of firms as independent entities" and that under conditions of pure resource homogeneity, M&A and alliances will be "formed solely for collusive purposes, rather than to gain access to complementary resources". This statement appears suspect for a number of reasons. Firstly, resource homogeneity is an unlikely condition in business realities. Secondly, even if a state close to resource homogeneity existed in certain industries, this would not automatically imply that players within such an industry are equally successful in identification and exploitation of their own, firm-specific resources. In individual cases, the existence of resource homogeneity may remain undetected. Furthermore and due to the reasons aforementioned, access to complementary, imperfectly mobile resources or "resource bundles" may symbolise major motivational factors for M&A activities.

Thus it can be argued that, under *frequent* conditions of resource heterogeneity, complementary resources are important factors affecting M&A activities. This may be particularly the case if identification of resource bundles is possible within organisations and their sub-units.

Liechtenstein and Brush's (2001:55) longitudinal study concerning the changes and developments of resource bundles came to the conclusion that, "as technology continues to fuel change in the environment, new ventures face increased choices in sources and combinations of resources and a better way of understanding the ways that resources may be assessed, identified, and combined can only help new ventures move towards success". In the light of this statement, the question arises how such "success" can be defined, measured and associated with the notion of competitive advantage or survival. In this context, existing literature highlights the following concept in particular:

Synergy

The combined effect available to a diversified firm is "synergy" which can produce a combined return on resources that is greater than the sum of individual parts (Ansoff, 1965; 1988). The research of Andrade, Mitchell and Stafford (2001:118) states that "if the term synergy is to have any meaning in a merger context, then it should imply that there is a common gain from uniquely joining the target and bidder, a benefit that cannot be appropriated by acquirers but in that case targets appear to keep all synergistic benefits of pairing to themselves". Unfortunately, their research lacks a clear definition of such "synergistic benefits".

Tallman (2003:400) takes a clear position on this issue through his observation that "synergies require real mergers of operating routines and rebuilding of capabilities". Nonetheless he acknowledged that "synergies are hard to develop, and even harder to value properly". Furthermore, De Wit and Meyer (2004:314) point out that "to make an acquisition fit into the corporate family and to establish all of the necessary links to let the new recruits profit from, and contribute to, the core synergies can be very challenging and as a result, acquisitions will be infrequent [in the context of the integrated organisation perspective] as the firm will prefer internal growth". The possible infrequency of acquisitions in organisations with a more integrated view on corporate-level strategy does reinforce the purpose of the key questions as stated earlier.

A diversified firm has a number of advantages because "it is a multi-business/multi-product organisation which, for instance, has the potential to develop interrelationships because of the different businesses or products that exist in the firm" (Ensign, 1998). Generally supporting the premise of the argument above, Kurt April's research into strategic resources and the RBV summarised that "even if 'bought' as part of an acquisition or merger, getting the old and new resource combinations to work together to produce an enhanced capability, i.e. resource-combinatorial synergy, is itself dependent on the organisational capability to integrate two sets of resources post-acquisition, as well as the capacity, flexibility and speed of integrated learning within the

company" (April, 2002:446). This particular statement highlights the potentially meaningful role of mergers and acquisitions for dynamic capability building processes.

Yet, as stated earlier, a gap in the literature exists with regard to the detailed processes underlying the exploitation of resource combinations for generation of dynamic capabilities at the M&A level. On the other hand, it must be questioned whether the existing focus on synergy sufficiently acknowledges dynamic attributes of resource combination processes, in particular the continuous renewal, adaptations to external changes and re-configurations generally associated with the DCV. Nevertheless, these issues can only be answered through precise corporate-level knowledge about existing resource pools at SBU levels.

In this particular context, Ensign (1998:666) concluded the following:

> Synergy is not simply a phenomenon that occurs at the corporate level - between whole business units - but is best viewed as resulting from specific instances of resource or activity sharing between segments/portions of different business units, in other words it is not business units in their entirety but rather its particular elements within them that combine to create value for a conglomerate.

A number of implications and key issues emerge from the statement above which may simultaneously affect the development of the framework of SCA. Identification of intangible resources within particular elements is more complex because the source of competitive advantage from one business unit may derive from a combination of intangible resources in itself. As discussed earlier, it is hard to believe that single intangible resources may represent possible sources of competitive advantage. In the tradition of Morgan's (1999) research concerning resource management activity, Finney, Campbell and Orwig (2004:73) similarly emphasise that "resource combinations are much more difficult for competitors to copy than are products based on a single resource and therefore, higher order resources are more likely to produce SCA". For this reason, the potential of "intelligent" combination of intangible resources in the light of dynamic capability building should be investigated.

Although they employ a different terminology and speak of "capability configurations", described as "cohesive combinations of resources and capabilities that are hard to imitate", Miller *et al.* (2002:43) point towards the potential of such specific action by arguing that "resource or capability configurations tend to be far more powerful, distinctive, and tough to copy than single capabilities". Regular knowledge sharing, for instance, between business units may take place in day-to-day business. Consequently, a minimum of three very broad and simplified dimensions of combinations of intangible resources may exist:

- Combinations between entire business units
- Combinations within business units
- Combinations of mixed "resource clusters/resource bundles" between business units

According to Pandza *et al.* (2003:1028), the most strategically important resources within organisations are likely to be bundled in "highly complex clusters". If dynamic capabilities derive from the M&A process, managerial scope to exploit combination potential naturally rests within the internal sphere. Due to the nature of DC, however, the likelihood of external influence exists and must be further explored.

This is reflected in the following statement: "complex systems of internal activities provide unique competencies that can be used in a variety of market niches to provide longer term competitive advantage "(Tallman, 2003:408). At this point, it may not be an easy task for organisations to transfer resources within their own boundaries. Even within essentially static resource-based models, unique imitability may affect both competitors and replication within a firm and its business units (Zander and Kogut, 1995). Additionally, to complicate matters, M&A activities may contribute further dimensions, because, naturally, they enhance the number of existing business units within the diversified corporation and as such the number of possible resource combinations.

However, this does not imply that potential for resource combinations or achievement of respective synergy effects exists in all organisations or respective business units. In fact, no studies exist so far which explicitly address the issue but it seems certain that it remains context- or even case- specific. This thesis aims to represent a case-specific investigation and to provide insights within the detailed context as described in more detail in Chapter Five.

However, the study by Cegarra-Navarro (2005:3) represents an attempt to transfer the problem on the related concept of strategic alliances. It describes a certain degree of potential for resource combinations within this context. "Due to the importance that has been granted to manage the knowledge as generating motor of intellectual capital in organisations, co-operation between companies constitutes one of the main forms to acquire knowledge that the company needs and does not possess". Whether the abstract model above can be applied to the business realities of the steel industry will be subject to data discussion, analysis and evaluation in subsequent chapters.

Salama, Holland and Vinten (2003:313) remark in this context that "no matter how attractive the business opportunity associated with an acquisition process is, value is not created until capabilities are transferred". It must be questioned however, whether transfer of resources is feasible and does represent the appropriate action taken in the post-acquisition process. This is mainly because the senior manager of the acquiring organisation may be facing a number of serious issues and difficulties which are outlined in the following.

De Wit and Meyer (2004:244) describe one of the major issues arising from application of the resource-based view on business practice: [...] "a strategising manager will want to compare the firm's resources to other companies to determine their relative strength [...] especially the identification of other firms' intangible resources can be quite arduous".

In the particular case of mergers and acquisitions it becomes even more difficult for senior managers to predict whether the resource bases are compatible and allow future related realisation of dynamic capability building or achievement

of competitive advantage; this is mainly because comparisons require deep insights into the resource base of the target company. As further discussed in Chapter Seven, three key issues arise concerning the role of M&A activities for the wider area of the DCV:

- Identification of intangible resources
- Compatibility of intangible resources
- Capability building in dynamic environments

Whilst all points on the list above could possibly affect the outcome of the case-specific M&A activity, they certainly do not all fall into the same period of time. Especially, identification and assessment of compatibility may be important tasks in the pre-acquisition period. Gupta and Roos (2001:297) remark that "common due-diligence approaches largely ignore intellectual capital because it is more difficult to identify and assess than tangible assets, mainly because of the causal ambiguity associated with intangible resources". This leads directly to the issue of premium prices paid for target firms. If intangible resources can not be clearly identified or measured and similarly difficulties apply to determine favourable conditions for dynamic capability building pre-acquisition, then assessment of appropriate premium prices for respective investments may face the top managers of the organisation with a number of problems.

However, general statements are problematic. Tallmann (2003:398, for example), states "the price [of the acquired] asset will typically absorb its economic value, leaving no opportunity for rent generation, unless the item can be combined with a bundle of complementary assets and capabilities to create a unique competence". A number of critical points emerge and are outlined in the following.

It cannot be assumed that creation of unique competences through resource combinations automatically results in economic value. As mentioned and justified earlier, the terms superior economic performances and competitive advantage should not be employed interchangeably. Although unique

competences may represent the underlying foundation of firm-specific competitive advantage, it is unclear whether the latter may generally be transformable into financial advantages or result automatically in favourable conditions. Even if this was the case, it must be carefully investigated whether successfully isolated and identified causal relationships have the logical power to attach financial advantages exclusively to resource combination in the M&A process. Furthermore, particular time factors complicate such pursuit because real organisations often conduct many acquisitions in relatively short periods of time, once they have made a clear decision for this particular method of external growth.

Tallman's earlier statement implies that M&A offer potential for creation of unique competences and rent creation. Yet, he adds that "the tacit routines and capabilities that give real economic value to a set of resources are seldom available and are difficult or impossible to specify, not amendable to easy economic analysis and cannot be properly priced and traded" (2003:398-399). It is difficult to understand how he came to such wide-reaching conclusions in the first place – based on the absence of empirical evidence presented in his paper. However, it can be acknowledged that measurement of tacit routines and capabilities is extremely difficult due to their unique nature and characteristics. In addition, Goold and Campbell (1998) explained in great detail the various practical difficulties corporate-level managers are faced with in relation to attempts to achieve synergies through simple resource combinations.

Strategic fit

Many academics (e.g. Schraeder and Self, 2003; Chatterje, Lubatkin, Schweiger and Weber, 1992) particularly emphasise the role of "strategic fit" in the context of M&A. It can be broadly characterised as "similarity between organisational strategies or complementary organisational strategies setting the stage for potential strategic synergy" (Schraeder and Self, 2003:511). Critique of the strategic fit literature derives from its basic assumption that "similarities between the acquiring and the acquired firms are the primary driver of potential value creation whereas differences between the two companies may also be a

sound basis for value creation as the strengths of one company in a particular area complement the strengths of the other in a different area" (Schoenberg, 2001:102). This statement is appropriate given the non-existence of sound evidence suggesting that potential for resource combinations and capability generation through M&A is dependent on the criterion of strategic fit.

Traditional RBV literature (e.g. Wernerfelt, 1984:172; Barney, 1991:101; Amit and Schoemaker, 1993:35) assumes that one main characteristic of resources is their close attachment to organisations - mainly through ownership and control. In Wernerfelt's words, for instance, resources are "tangible and intangible assets which are tied semi-permanently to the firm" (1984:172). On the other hand, Lavie (2006:641) states that "the proprietary assumption of the RBV does not pose a limitation to the extent that the competitive environment is populated by independent firms".

However, he also adds in the same context that, "in recent years, evidence has accumulated suggesting that resources of alliance partners transferred via direct inter-firm interactions have a considerable impact on firm performance and can be referred to as network resources that extend the opportunity set of the firm". Whether the statement concerning firm performance made above may be similarly applicable to M&A activities or not, it becomes clear that they naturally represents a form of interaction between two organisations and as such may offer potential for resource transfer and combination and the involvement of "network resources".

A further critical issue arises from the following statement by Tallman (2003:387) which relates back to the research of Nelson and Winter (1982):

> Capabilities contain an inherent learning aspect, cannot be bought and are too complex and unspecified to be built intentionally. Rather they evolve in response to demands for improved performance and random variation in internal processes.

Homburg and Bucerius (2006) investigated the post-merger period from a different angle and argued that the issue of speed of post-merger integration (PMI) may play a certain role for "successful" accomplishment of such

activities. Furthermore they link the issue with internal and external relatedness of involved organisations. It is unlikely however, that single aspects such as PMI have a significant impact on the performance of M&A, both in terms of financial performance or achievement of competitive advantage. Once again, this is mainly due to the difficulties in identifying and isolating such causal relationships with certainty.

Additionally, the question arises if organisations have great influence on speed of integration in business realities and how the definition of achievement or completion of integration processes possibly conflicts with their continuous and evolutionary nature. It can therefore be summarised that, in terms of capability building and configurations, a complex variety of factors must be taken into account, both pre- and post-merger.

Despite high failure rates of mergers and acquisitions, some companies are consistently outperforming other companies in M&A - even within similar or the same industries. Consider Google Inc. as an example. Therefore, two important questions arise: firstly, to what extent do their individual capability building processes separate them from other companies or enable successful implementation of the former? Secondly, where is the main focus of attention within the acquiring company? Is it on the integration and employment of acquired resource bases into existing capability building routines, thus an application of the former on suitable business objects based on specific expertise? Or is it settled within innovative transformation and gradual adaptation of the former routines to both changing business environments and diverse resource bases of identified and potential target companies?

These fundamental questions need to be addressed to understand and fully grasp the role of dynamic capabilities in the wider context of M&A. Despite the structured insights from the literature review, data analysis allows for the emergence of any contradictory evidence regarding assumed links between M&A and dynamic capabilities in the steel industry. In other words, it is acknowledged that they may not exist at all.

4.3 Conclusion of Part 1 and Gaps

Survey of the literature assisted the development of theoretical, "a priori" propositions which naturally are closely related to the general research question and guided initial data collection. For this reason, the review of heritage, wider context and seminal publications in this narrow area of enquiry represents an important element of the thesis and has subsequently influenced the study in a way which went beyond simple identification of gaps in the literature. Naturally, the tentative propositions below are revisited and subject to critical evaluation as part of subsequent chapters. Their role is somewhat paradoxical. They represent key insights or the "quintessence" of the literature review process. However, theoretical foundations supporting these issues may be regarded as relatively limited with regard to output and justification.

Symbolically, the list simultaneously indicates a clearly existing gap. If research in strategic management is an ongoing process, then the current status or cutting-edge of knowledge is naturally a grey area. This is due to the fact that limitations can be identified and observations made but time lags may emerge until additional research verifies or contradicts preliminary, individual findings. The current study aims to explore parts of this gap through specific industry application – **focused on the managerial perspective** - as reflected in the propositions.

1. **The DCV represents a logical theoretical development and further highlights RBV myopia concerning existence and achievement of sustainable competitive advantage in today's business contexts**
2. **Dynamic capabilities analysis and respective building efforts may represent threshold capabilities within individual industries. They are complex, case- or industry-specific and, in terms of purpose and objectives, diverge from achievement of competitive advantage**
3. **Dynamic capability building is principally an organic exercise but "intelligent" M&A activities may provide capability building modules and access to resource bases which could theoretically accelerate or facilitate the process**

In addition, it is important to note that the three propositions above are directly linked with the overarching research questions and justify their specific attributes and appearance at the time of the study.

PART 2: THE RESEARCH FOUNDATION

Chapter Five outlines the practical steps necessary to achieve the research objectives as stated earlier and provides details concerning the implementation of the research strategy through data collection and analysis. Moreover, limitations of the research design are identified and addressed.

CHAPTER 5: RESEARCH DESIGN AND METHOD

> First I shall make some experiments before I proceed further, because my intention is to consult experience first and then by means of reasoning show why such experiment is bound to work in such a way. And this is the true rule by which those who analyse natural effects must proceed; and although nature begins with the cause and ends with the experience, we must follow the opposite course, namely (as I said before), begin with the experience and by means of it investigate the cause.
>
> *Leonardo Da Vinci*[22]

5.1 Research Purpose

Fleetwood (2005:197) argues that "the way we think the world is influences what we think can be known about it and how we think it can be investigated". Accordingly, ontological beliefs set epistemological expectations and ultimately the choice of methodology and research techniques. For a number of logical reasons, such a sequential, pre-defined set of "allowed" routes of academic enquiry appears to be both taken for granted and fully accepted; yet it displays both irrationality and incompatibility, at least in the context of strategy and this study. Therefore, these issues require preliminary clarification within this chapter. Simply put, the presented research attempts to approach a clearly defined problem in strategic management. Of particular importance for any research process is a thorough review of existing knowledge of the subject area.

What was derived from the extensive literature review presented in previous chapters are the following basic insights: although a consensus exists concerning the important role of processes associated with dynamic capability building for achievement of "competitive survival" in high-velocity environments, their "organic operations" remain largely unexplored. In other words, due to relatively limited research outputs to date, certain fundamental difficulties exist with regard to both their structures and continuous evolution within a variety of industry settings.

[22] Nuland, S. B. (2005) *Leonardo Da Vinci*, New York: Penguin.

Shrivastava (1987) concluded more than two decades ago that research in strategy often emphasises practical value and usefulness but should strive to combine this with academic rigour. Although a number of scholars question both the significance and feasibility of clear distinctions between theories and practice in general (see Scherer and Dowling, 1995, for instance), the previous chapters have shown that the accumulated body of knowledge in strategy often builds on contradictory evidence or research findings which are unable to fulfil such challenging demands. These issues will be discussed in more detail within this chapter.

Its main purpose is to highlight the general complexities concerned with strategy as a research discipline and respective implications and to both identify and explain the relevant ontological and epistemological foundations and their role for this specific research endeavour. Naturally, this process includes both identification and critical evaluation of direct implications through specific attention to explicit establishment of respective linkages. To summarise, this chapter sets the scene for subsequent chapters and as such attempts to allow clarity of the specific contribution the data analysis may offer towards a re-conceptualised framework of dynamic capabilities.

Ontology and epistemology

Powell (2002:879) asserts that strategy is "an experiential arena where philosophy matters, and strategy research is beginning to recognise this connection". The statement implies that any research process within the discipline requires clarity with regard to a number of issues. These are often pooled under the labels *epistemology* and *ontology*. They will now be introduced and discussed in more detail. Ontological assumptions "concern the very essence of phenomena under investigation" (Burrell and Morgan, 1979:1). On the other hand, epistemological issues concern the study of knowledge at acceptable standards (Bryman and Bell, 2007). Nevertheless, certain terminology problems and blurry definitions hinder a systematic introduction of the two concepts. Therefore, this section focuses on practical implications rather than unresolved debates. To give an example, for strategy research, the

distinction between the two broad categories of ontological realism and relativism is technically negligible - this is mainly due to the fact that it makes logical sense to take the *existence* of phenomena themselves for granted and not to question tangible outcomes of firm-specific value creation (Mir and Watson, 2000). A general example for the latter could be production processes. Therefore, the study is arguably positioned within the zone of ontological realism.

An in-depth, more detailed explanation of this statement and its implications is not useful for this study; this is mainly due to two reasons. Firstly, the ontological status has no research consequences (Powell, 2003:287). Secondly, clear statements concerning ontological beliefs do *not* automatically set the subsequent epistemological foundations for the research process. The two are not linked. This specific view, however, may not represent broad academic consensus. Fleetwood (2005), for instance, simply states that ontology "matters". On the other hand, Burrell and Morgan (1979) arguably misleadingly divided approaches to social science into opposite and mutually exclusive dimensions such as subjective or objective; thus, according to their perspective, clear ontological perceptions result in respective, epistemological or methodological positions.

From a strategy viewpoint, realities are characterised by complexity, uncertainty, and ambiguity (Brown and Eisenhardt, 1998) and this observation naturally affects research processes. Philosophical foundations of strategy research are not "either radical or conventional, [...] neither objectivist nor subjectivist, rationalist nor empiricist, positivist nor post-modern" (Powell, 2002:873). Basic rejections of conventional philosophies are not recommendable as both limitations of past research and more recent theoretical developments have shown; the epistemological direction results in certain implications and requires special attention. Still, a number of problematic issues may be identified. As mentioned above, although the researcher adopts an understanding of ontological realism, the latter is ideally detached from strategy research for the reasons aforementioned. Nonetheless, this specific position does neither inevitably nor automatically result in an epistemological counterpart at

the objectivist end of the continuum. A number of philosophical studies (e.g. Mir and Watson, 2000; 2001) point towards the advantages of epistemological *relativism* in both the general contexts of strategic management and research on dynamic capabilities in particular. This will be explained, clarified and justified in the following sections.

For logical reasons, it is of preliminary importance to define the term methodology first which may be described as an "intricate set of ontological and epistemological assumptions that a researcher brings to his or her work" (Prasad, 1997:2). As this statement implies, the methodology derives from philosophical considerations. Epistemology is defined as the study of the grounds of knowledge (Hannabuss, 2001:357). According to Prasad's (1997) claim above, epistemological assumptions should be clarified *before* the actual process of methodological identification takes place. Still, it is a common misconception (Fligstein, 1991; Eisenhardt and Bourgeois III, 1988) to assume that a clear methodological stance results in a limited number of methodical pathways.

The selection of research methods itself is arguably independent from research philosophies, despite their likeliness to be affected by the nature of the defined research problem - at varying, research and context-specific degrees. It is similarly important to recognise that clarification of epistemological assumptions neither justifies nor explains the way research is conducted. In other words, the researcher's task is associated with identification of the nature of the study and respective decision making; the employed methods are hence neither restrained by ontological nor epistemological assumptions but require exclusive adaptation to the research problem. This is confirmed by Bryman and Bell (2007:631) who state that "the connection between research strategy [...] and epistemological and ontological commitments is not deterministic". This results in a complex positioning of research methods, research strategy and methodological factors with regard to the central research problem. First, the latter influences the elements mentioned above, and not vice versa. Second, the research pathway is highly dependent on the nature of the overall research questions, rather than on research paradigms.

At a first glance, this statement is contrary to "traditional" views and requires a more detailed explanation. Bryman (1988:4), for example, defines a paradigm as a "cluster of beliefs [...] which for scientists in a particular discipline influences what should be studied, how research should be done, and how results should be interpreted". However, this definition is somewhat problematic. According to Mink (1992), a paradigm broadly characterises a world view. Hence, a number of critical questions arise. Although it is acknowledged that personal understanding of reality may affect the way research is conducted, it is highly questionable whether this process is always completed prior to the actual act of conducting research. Conversely, the researcher's set of beliefs may be subject to changes while the study is still ongoing. In other cases the research processes themselves or preliminary findings may trigger a change of epistemological views. Moreover, Bryman (1988) did not deliver plausible explanations for the implied assumption that paradigms determine how pre-defined problems are approached. To summarise, attempts to simplify research realities may be counter-productive and in itself highly constructivist[23], regardless from self-defined positioning on epistemological scales.

As briefly mentioned above, Mir and Watson (2000) provided a coherent argument for epistemological relativism and the implications for strategic management. Accordingly, the former may facilitate the exploration of a field characterised by a constructed nature in which the senior managers are active participants rather than processors or reactors. Thus, researchers often neither "discover the truth" nor measure "reality out there", they are constructing theories which subsequently gain the status of intrinsic concepts (Mir and Watson, 2000:946) and can avoid the "perils of over-generalisation through understanding of the context-driven nature of strategy" (Mir and Watson, 2000:950). Thus, Mir and Watson (2000) emphasised the promotion of

[23] The notion of "constructivism" has been highly influenced and advanced by Foucault (1974), Habermas (1970), Piaget (1977), Vygotsky (1978) and perhaps Beer (1959). Nevertheless, it will not be discussed in detail within this thesis for reasons explained in the remainder of the section.

sensitivity to context and history; an action which in itself may depart from more empiricist research.

All the same, "constructivist" viewpoints in general, and the argument put forward by Mir and Watson (2000) in particular, naturally trigger a variety of critical responses, most of which have their roots within the so-called "critical realism" paradigm. Given the fact that "increasingly the notion of constructivism in relation to the nature of knowledge of the social world [or epistemology] is being incorporated into notions of [ontological] constructivism" (Bryman and Bell, 2007:23), difficulties associated with respective terminology are naturally reinforced. This is mainly because it is not always explicit if scholars mean the epistemological or ontological position when they employ certain expressions. Nevertheless, due to both general characteristics of the research design as illustrated in the figure below and subsequent limited relevance of ontological considerations for the latter as well as general contradictions in the existing body of knowledge, the term "constructivism" is employed in a mainly epistemological sense within this thesis.

Kwan and Tsang (2001:1164) stress the required distinction between various types of constructivism and argue that "reality has no input to and control over scientific research if philosophical positions determine research findings". This position must be rejected as the term "reality" and its identification is relatively problematic, partly because it implies, in parts, the existence of one universal, independent entity, detached from the influences of researcher and managers. Furthermore, it is questionable whether a more realist approach to strategy research does not similarly influence respective outcomes, simply through conscious decisions against acknowledgment of important contextual factors, for instance. At the same time, the process of theory building itself ignores the boundaries of epistemological positions; therefore clear positioning within wider spectra appears neither necessary nor recommendable. This applies simultaneously to both the domain of constructivism and realism and their respective sub-units.

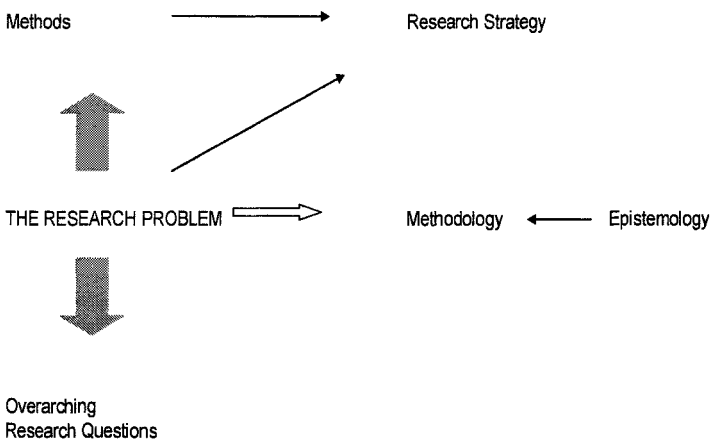
For this reason, Kwan and Tsang's (2001) argument as outlined above provides only limited relevance to the general debate. In fact, the latter itself is partly unnecessary, due to the fact that epistemological positions should not automatically determine the "appropriate" choice of methods. Such a theoretical stance does not undermine, however, the researcher's freedom to explain the advantages of the preferred direction, in particular with regard to the nature of a narrow field of enquiry such as dynamic capability building processes; to state the random example of positivism, conscious decisions to conduct value-free or objective research indirectly confirm specific principles of individuals engaged in such action and hence contradict the assumed existence of value-free realities per se.

This hypothetical case demonstrates that academic enquiry is for the most part not only highly affected but also led by values. Additionally, in the purely illustrative example included above, active decisions are made towards "construction" of value-free realities although the former directly contradict any researcher's chosen positivist stance. This, however, directly diminishes the original argument, i.e. that objective realities are studied. Furthermore, it may be described as incomplete with regard to establishment of foundation for analysis, evaluation or interpretation of certain findings which may not acknowledge the constructed reality of absence of values. Therefore, logical reasons arguably suggest allocation of special attention to the research problem as opposed to blind adherence to rituals or boundaries of certain subject areas or research disciplines.

In other words, emphasis must be shifted away from the dominance of modes of engagement to unexcited attempts to refocus on the basic origins of academic enquiry. A number of scholars (e.g. Seth and Zinkhan, 1991; Powell, 2003) emphasise that a certain degree of openness towards a variety of research philosophies and methods forms the basis of academic scholarship; this requirement is particularly enhanced through certain characteristics of the complex world we live in. Mir and Watson (2001:1172) termed such attitudes "acts of intellectual humility". Interestingly, research by Llewellyn (2007:53) indirectly called for the latter through an initial attempt to challenge the idea of

single realities as portrayed by both positivism and constructivism. Her notion of "differentiated realities" results in certain implications for research strategies and is discussed in more detail in subsequent sections.

Figure 2 The Role of the Research Problem



Source: Author

Figure 1 above illustrates that the most central element of the research process is naturally the research problem. The latter results in development of overarching research questions, determines the selected methods and ultimately affects the chosen research strategy. Whilst the methods may support the research strategy, it is important to note that epistemological considerations have no direct effect on the former. In this context and for the reasons aforementioned, ontological positions do not appear within the research design. Ontology and epistemology may contribute to the overall description of methodology as defined earlier; yet the central clarification of methodology derives from the research problem. For

this reason, its identification may represent the most fundamental stage of any research endeavour in strategic management.

The rationale as outlined above is a preliminary requirement in order to tackle the earlier introduced research problem which forms the foundation of this study and is reinforced through the nature of the subject as introduced in previous chapters. This is reflected in the research design above and will be explained in more detail in the context of the research strategy.

5.2 Research Process

Any introduction to the research process requires a preliminary definition of the term "theory". According to Hunt (1983), it is a set of empirically testable statements whose main purpose lies within the development of a structure which allows explanation and prediction of phenomena. With regard to the nature of the discipline and research gaps, this definition may be subject to debate. Arend (2003), for example, criticised attempts to call strategy a "language game", as the "prediction and control of the dependent variable always remains difficult from a practitioner's perspective" (Arend, 2003:283). As mentioned earlier in the review of the literature, future-based variables can not be predicted but are nevertheless highly influential and thus crucial phenomena which should not be ignored. Therefore, strategy research is likely to continue to attract critical responses, unless definitions are developed which take both the nature of strategy research and specific research problems explicitly into account.

Strategic management and ontological relativism appear incompatible. Nevertheless, the role of the latter for specific research processes should not be over-estimated and in the tradition of Powell (2003), the presented study attempts to refrain from any act of building artificial connections with ontological realities, as neither theory building nor scientific rigour depends on such pursuits. Still, a clear epistemological stance appears to represent a central element of this study although, as mentioned above, the choice of research methods results from separate factors which will be introduced in the remainder of this chapter.

5.2.1 Research philosophy

As mentioned above, epistemological considerations affected the design of this research to some extent, in particular with regard to the research approach as below outlined in section 5.2.2. Still, the overall impact on the study may be considered as relatively minor. This is mainly due to the aforementioned basic philosophical considerations. Despite these important observations, it is necessary to outline the researcher's paradigmatic stance in broad terms: it is characterised by an understanding of *realities* as dimensions which are complex and subject to individual values and interpretations. Burrell and Morgan (1979:260) termed this subjectivist approach towards the analysis of the social world an "interpretive" paradigm and further distinguished between subsets of interpretive world views.

In this context, the so-called "phenomenological" approach (Schutz, 1967) is associated with "social contexts in which inter-acting individuals employ a variety of practices to create and sustain particular definitions of the world". To a certain extent, the focus on the managerial perspective within a narrowly defined context, both geographically and with regard to the theoretical research questions, reflects the original focal point of enquiry. In this particular case, the problem is informed by the lens of individuals within this setting - through active incorporation of awareness of environmental factors, thus assigning a clearly defined role to the researcher. It is neither the one of an independent observer, nor determined by direct involvement with the specific reality under investigation. It represents an attempt to obtain knowledge about the world view of strategic managers in the Russian steel industry. Nonetheless the research does not fully adopt an employees' perspective, although the existence of such a "constructed" reality is fully acknowledged.

Arguably, this position *between* two extremes is an important prerequisite for critical yet relevant analysis of the respective dynamic capabilities building processes. In other words, a certain distance from the subject of study is necessary to facilitate identification of patterns, especially with regard to the

coding exercises as described in the remainder of this chapter. At the same time, this is not an objective study, because the philosophical stance of the researcher questions the basic rationale of objectivism. Conversely, the study *explicitly* supports the emphasis on narrow, context-specific phenomena often attached to descriptions of subjectivism. Moreover, the literature survey has clearly demonstrated that DCV-related findings are hard to generalise beyond industries, situations, or, in some instances, case units of analysis. To summarise, the core foundations of the identified philosophical paradigm within the wider interpretivist spectrum and respective implications are fully recognised by the current research.

Obvious connections with subordinated elements more associated with micro level factors of pursuit of the study, such as the choice of methods, for example, are similarly apparent. Still, the existence of these linkages does *not* automatically justify actual details of the research design because, as stated above, pre-configured pathways with epistemological positions as the major influential variable appear incompatible with the nature of the subject discipline and more general complexities of life.

5.2.2 Research approach

As the opening quote of this chapter indicated, this study adopts an inductive form of reasoning with identification of insights from data. According to Bryman and Bell (2007:581), within inductive research, "data are collected to build theory rather than to test it". On the other hand, Gill and Johnson (2002) explain that induction is characterised by formulation of abstract concepts or theories through explanation post analysis. It is nevertheless of special importance to emphasise that this research is not *entirely* inductive, as the literature survey and the development of "theoretical propositions" informed data analysis and coding stages to some extent. This is outlined in more detail in subsequent chapters. For this reason, the enquiry followed a "structured" process of induction but is nevertheless fully irreconcilable with the basic principles of deductive research.

Transferred to the context of dynamic capabilities, this approach is indirectly confirmed by the study by Green *et al.* (2008:66) who emphasise that "the continuing contestation of dynamic capabilities militates against any single explanation of what 'dynamic capabilities' are and the role they play in the setting of strategy". They add that meaningful research in this area is unlikely to be possible through more deductive approaches. Nevertheless, this is dependent on individual research questions and should not be generalised across the whole subject of strategy.

So far, this chapter has clarified, explained and justified the ontological, epistemological and thus general philosophical underpinnings of the thesis. Whereas they are relevant for the research as a whole, it is advisable to regard subsequent methodological decisions as partly independent from the former, mainly due to the central role of the research problem. Henceforth, logical foundations of the selected research approach will be introduced and justified separately throughout the following sections. A review of the pilot study experience and its implications follows this sequence.

5.3 Research Design

5.3.1 Research strategy

The selected research strategy was that of a single-case study with subordinated units of analysis. This decision mainly derived from the nature of the research questions, the theoretical focus of the study and the philosophical considerations as described above and is explained and justified in the remainder of this section. According to Meyer (2001:329), the case study process does not provide specific requirements or guidelines and "allows tailoring the design and data collection procedures to the research questions". Still, the freedom associated with this research strategy emphasises a particular focus on criteria for the research design. Yin (2003a) explains that case studies must strive to fulfil four design tests - internal validity, external validity, construct validity and reliability.

However, due to the characteristics of this specific study which did not aim to establish causal relationships, only the last three tests on the list above were applicable and are thus explained in the logical context of the specific phases of research, i.e. external validity in the research design and construct validity and reliability in the respective data collection sections. Given the earlier explained central role of the research questions for strategy research and this investigation, case studies appeared to be the most suitable research strategy. Although some scholars (Hartley, 1994; Leonard-Barton, 1990; Gummesson, 1988) confirmed general advantages of case study research, more important for the chosen pathway are the following subject specific reasons.

5.3.2 Case study research: units of analysis and the DCV context

The research design was informed by the theoretical propositions deriving from the literature and aligned with the overarching research questions. This reliance on theoretical propositions generated from critical examination of existing knowledge was reflected in the employed data analysis techniques. Although the collected data are of a qualitative nature, this particular study has idiosyncratic characteristics which require further elaboration. Firstly, the important role of academic literature and identification of theoretical contradictions therein and secondly paradigmatic tensions associated with participants' perspectives. The intended goal of the process of combination and acknowledgment of these important aspects was theory building through explanation - within narrowly defined contexts and through special emphasis on the risks and limitations attached to the chosen methodological pathway. In this context, it is important to briefly discuss *external validity* as one of the three main tests of the research design. Although naturally no replication logic as in multiple case studies applied, the research design nonetheless allowed for use of theory in a single-case study. Additionally, deriving from the specific description of the unit of analysis and its seemingly broad nature, the modes of generalisation require clarification. In this particular case, Yin's (2003a:40) notion of "analytic generalisation" in which a previously developed theory is used as a template with which to compare the empirical results of the case

study" has been employed. The impact of this statement for data analysis and conclusions will be outlined in subsequent chapters.

Apart from documentary evidence with highly restricted access, the approach taken for this research comprised personal interviews with individuals who were engaged in various managerial roles at the time of the study. As in the case of the pilot interviews, initial contact was facilitated by an intermediary. This was then followed by personal negotiations regarding participation in the study.

More specifically, their job titles were "Manager", "Specialist", and "Senior Manager". Despite individual involvement within both the so-called "Strategy and Controlling Department" and "Commercial Department", the majority of interviewees described their activities as being exclusively based in the "Strategic Planning Department" - the latter works closely with the general director and represented the central organisational unit responsible for the strategic direction. Interviewees were thus selected with regard to their strategy-related role and higher managerial level position within the steel industry. More detailed information concerning the portfolio structure and its DCV-related implications for the development of the units of analysis are described below. More detailed information on Company X is included in Chapter Eight.

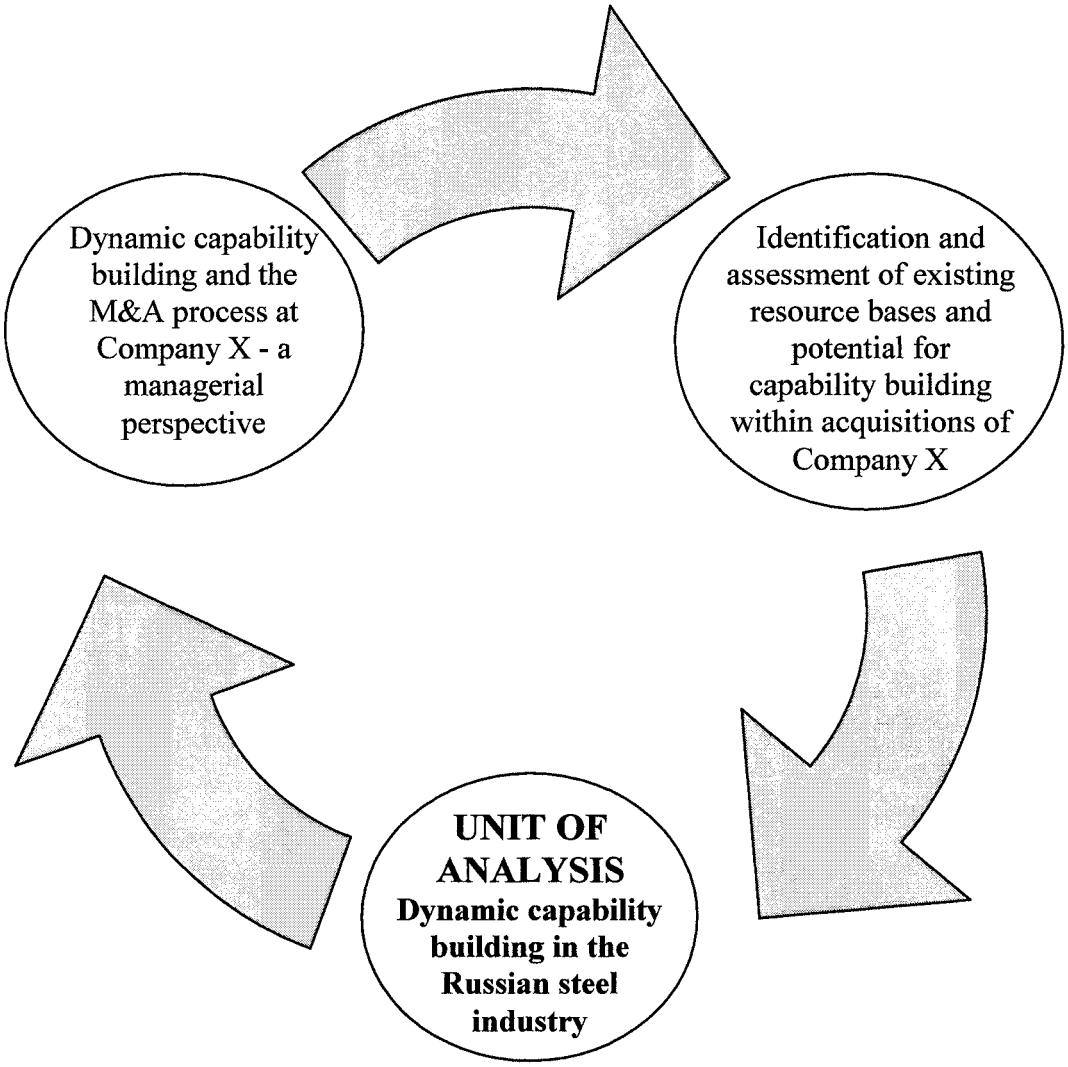
It is of preliminary importance, however, to clarify the units of analysis: due to the logical nature of the M&A process and the respective theoretical focus of dynamic capability building in such a specific setting it was necessary to employ a minimum of two embedded units of analysis within the chosen single-case design of this particular study. Yin (2003a:40) described this basic type of case study design as "single-case (embedded) design with multiple units of analysis". Although the methods of data collection comprised semi-structured interviews with senior managers of the Russian steel manufacturer Company X, it is important to note that the overarching unit of case analysis was *not* the business organisation Company X.

The unit of analysis was represented through *both* exploration and explanation of dynamic capability building processes within the steel industry. The

difficulties associated with clear distinctions between process and content levels in the specific context of the DCV have been mentioned earlier in the literature review chapters: explanation and exploration of such phenomena cannot be clearly separated. This results from the nature and theoretical definitions of dynamic capability building. Nevertheless, two factors highlight why data analysis culminated in emergence and development of a more explanatory case study for this thesis. First, as suggested above, the main objective of the latter was conclusion of a study and not pure development of ideas for further studies as often associated with exploratory enquiries. Second, the nature of the main research questions, as introduced in Chapter One, suggested an explanatory study. Nevertheless it is necessary to emphasise the specific theoretical difficulties to make this particular distinction in the context of the dynamic capabilities view within the subject discipline of strategy.

Furthermore, clarification is required concerning the development of the subordinated components under investigation: the narrow perspective of senior managers within Company X constituted an element of the first embedded unit of analysis only and has shed light on the links with managerial processes through the individual lens of participants, thus providing links with research objectives and philosophy as a response to problematic issues identified in the academic literature. Still, any M&A activity naturally involves more than one company. Consequently, analysis of mergers and acquisitions from a capability-based perspective requires acknowledgment of resource bases and potential for capability building of all involved organisations. Therefore, the second embedded unit of analysis comprised consideration of relevant factors and evidence which lie outside of Company X or, in other cases the only connection were realised or potential M&A processes. Figure 2 below illustrates the main unit of analysis and the nature of the two affiliated *sub-units*:

Figure 3 Units of Analysis



The action characterised by selection of a number of such companies did not under any circumstances affect or alter the type of the case study which remained single-case throughout the entire research process - regardless of the number of players within the industry under investigation as defined and contextualised below. The main unit of analysis was the most critical of the multiple embedded units of analysis employed but nevertheless a certain dependence on the contributions of the latter existed. To summarise, the case study was neither the business organisation Company X nor the individual

managers within this firm but the processes and contents associated with dynamic capabilities building and the M&A process within the setting as described above. This rationale represented the major foundation of the case study design.

5.4 Data Collection

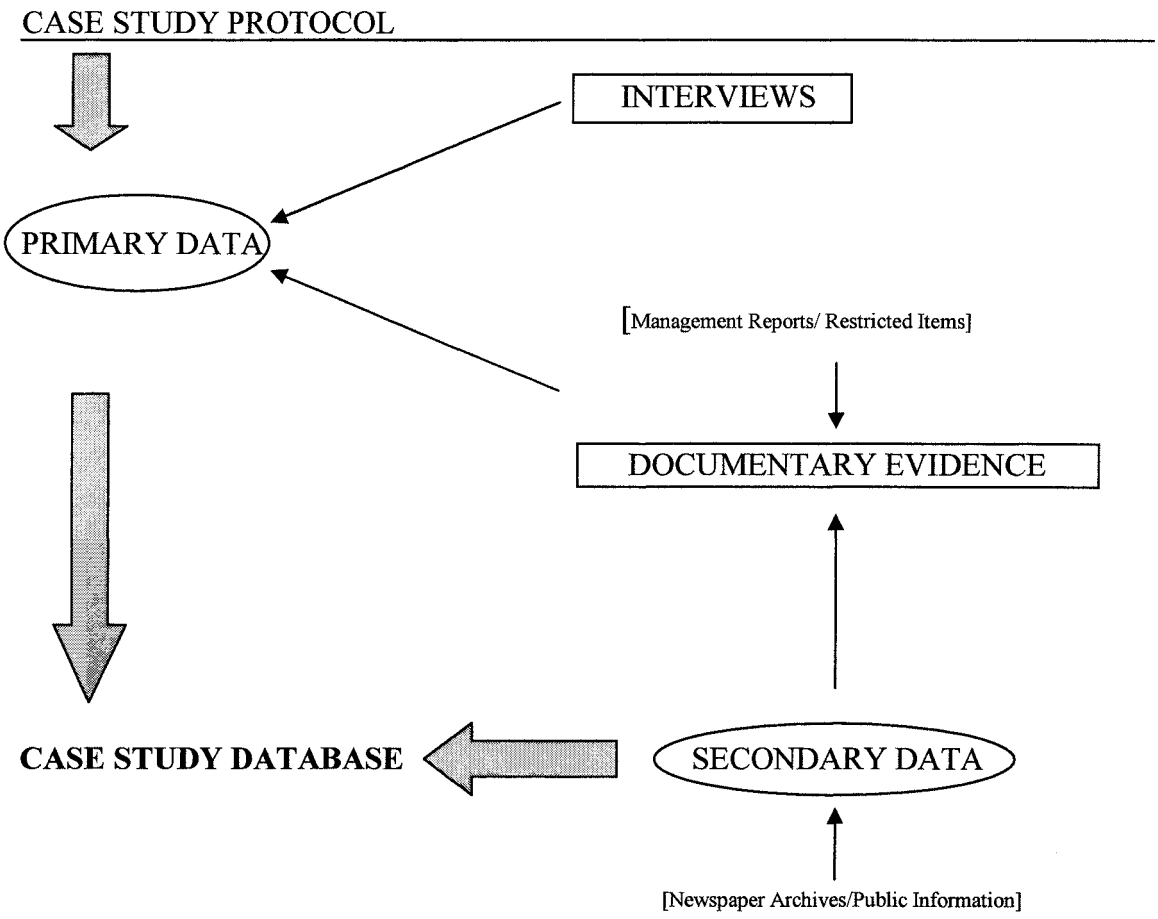
As mentioned earlier, the personal interviews with senior managers constituted the major yet not exclusive source of collected data and were semi-structured in nature. This particular type of interview constitutes an appropriate tool for identification of an individual's world views (Rubin and Rubin, 1995) and complements the epistemological considerations as discussed above; in other words, the limited meaning of the latter for the purpose of this study - complementary with the basic logical underpinning of this chapter - resulted in the requirement to identify data collection tools which allowed for a clear and narrow focus on the research problem, informed by *both* a DCV lens and the managerial perspective.

Despite this rationale, a certain detachment from the existing body of knowledge as well as the participants' perspective was necessary in order to promote or at least tolerate the emergence of unanticipated themes throughout the entire data analysis process; naturally this line of thought applied exclusively to themes relevant for the theory building exercises and respective focus on dynamic capability building processes - a general grounded theory approach with "free flow" of theory building from data appeared incompatible with the narrow research questions and has thus not been adopted for this study. As stated earlier, the study is nevertheless clearly inductive in nature but offers awareness of the structured character of the majority of such studies. The latter observation is confirmed by Bryman and Bell (2007).

In the following, some details are provided in order to shed light on the various stages associated with the gathering of data. For the purpose of clarity, the description of the case study database is divided into two major categories: semi-structured interviews and documentary evidence. The illustration (Figure

3) below outlines the basic roles of the two main data sources and precedes a discussion of data triangulation and its implications for the study.

Figure 4 Primary and Secondary Data Sources



Documentary evidence

In the context of this study, documentary evidence as part of the collected data draws from two foundations: secondary, external sources from publicly available newspaper archives and respective databases and internal strategy documents. Naturally, the latter were of highly constrained access and particular importance for this investigation. Their employment is further justified below.

A total number of sixteen extensive and detailed reports have been analysed within this study as part of documentary evidence and thus contributed to the

respective data analysis and evaluation. More specifically, the documentary evidence consisted of management reports, mainly dealing with issues of strategic change and strategy, both at corporate and business levels. The specific value is related to a number of key factors: first, all of these reports were produced by managers and senior managers of Company X in the years 2005-2007. Interestingly, the authors were active members of the same departments as subsequent interview participants. In one case, one of the managers of the strategy department authored a management report in 2006 and agreed to be interviewed in 2007. In another case, the same applied to a senior manager responsible for M&A.

As a result, a basic opportunity for comparison and verification *within* the data emerged. Palakshappa and Gordon (2006:392) emphasise that "an important aspect of case research is the source of multiple sources of evidence [...] to help reduce the problems associated with respondent bias or poor recall/articulation through the interview process [...] and allow for consideration of a broader range of issues and within-method triangulation". On the other hand, Irvine and Gaffikin (2006:128) provided a critical review of the role of documentary evidence for social science research. According to their position, documents cannot be ignored as this could result in distortion of organisational contexts. However, their research also reinforced that this type of data "construct a particular view of reality". As a result, the process of understanding which is naturally closely linked with analysis rests within the context in which such documents were written. Nevertheless, due to the nature of the dynamic capabilities under investigation, context represented one of the major focal points of enquiry. Not just "side effect" or pure background. The need to incorporate certain degrees of criticality derived from this dependence and was therefore acknowledged within this doctoral thesis.

At the same time, the points made above by Irvine and Gaffikin (2006) offer certain implications for the issue of relevance: it is important to note that the employed documentary evidence from this source - as the semi-structured interviews which are described below - represented an exclusively managerial perspective. Any emphasis on this aspect may be justified by the observation

that, as a direct result, the case study database fully addresses and targets the overall research objectives as outlined earlier. This is because, as indicated relatively early, the doctoral study focussed explicitly on the managerial perspective - for this reason both the explicit acknowledgment and the central role of management reports for data analysis appeared justified.

Still, the nature of the reports requires further clarification: they may not be classified as secondary evidence. The term *hybrid* is employed here. As mentioned above, they fail to represent previously published or publishable material - access has been restricted to the researcher and individual managers who wrote the reports only; moreover, confidentiality and the complexity of ongoing changes within the Russian steel industry setting characterised by a fairly "perishable" nature of any written or textual documents makes future distribution unrealistic, regardless of classification as internal or external sources. For this reason, exclusiveness of access and content is given. According to Hughes (2000:22) "in [...] the literature about documentary analysis a common confusion about whether documents are primary or secondary data is apparent". He added that documentary evidence is not inferior per se and cannot be named secondary data if it represents the object of research as opposed to a single resource in research. Nonetheless, within this study, documents contributed to data triangulation and thus did not represent the sole focus of attention, therefore representing an intermediate, hybrid state with characteristics of both primary and secondary data. In order to avoid confusion, interviews are classified as primary, management reports as hybrid and publicly available newspaper sources as secondary evidence within the presented thesis.

The basic decision to utilise this particular evidence, was dependent on a number of additional factors. In order to disable negative stereotypes associated with documentary research (Thompson and McHugh, 1995), data triangulation was applied. However, according to Bryman and Bell (2007:575), this single action may not be sufficient because theoretical and practical issues reinforce the need to evaluate *suitability* of documentary evidence: pre-selection mainly through assessment of the key criteria authenticity, credibility,

representativeness and meaning is necessary. These criteria are addressed below.

The documents have been produced by managers and senior managers of Company X in order to provide analyses of internal resource bases, the external environment and general strategic factors facing this company and its industry at *one* point in time. In addition, they encompassed a very personal and detailed but also restricted stance on strategic changes. The individuals worked in respective departments for relatively long periods of time, typically periods of five years or more, and were hence in a position to write authoritatively about the subject and, more importantly, to identify path dependencies and their development over time. Moreover, the material is genuine. Finally, the nature of the management reports is characterised by clear, concise foci and meaning - as their original purpose implies. Also, events or accounts presented in the documents were verifiable through secondary sources and interview data.

For the reasons listed above, theoretical suitability as defined by Bryman and Bell (2007) applied. Nonetheless, apart from some ethical aspects, certain implications for data analysis have to be acknowledged in the remainder of this chapter. The following section describes the second main source of collected data, personal interviews, in more detail.

Semi-structured interviews

Sampling and selection was determined by the two key factors access and suitability with regard to job description and specific role. The researcher interviewed all participants personally, in premises with limited risk of disturbances and appropriate noise levels. Three interviews were conducted by telephone, due to time constraints. Initially, participants counter-signed informed consent forms and were notified about the broad nature of the study, the key terminology employed and the interview process itself. The template for mutual consent is included in **Appendix A**. During the actual conversations, the interviewer attempted to focus on two elements: first, broad orientation against pre-defined themes based on the theoretical literature survey, secondly, active

and conscious identification of possible emerging themes and respective deeper exploration. All audio files were subsequently transcribed.

Strategy subject knowledge proved advantageous for the extensive transcribing processes themselves. Only the former allowed transcription in an appropriate manner, at least within the context of this study. Participants often employed paraphrasing or different wording for certain theoretical terminology due to their practical backgrounds. Although it did not represent direct elements of the data analysis procedures, adding comments to the verbatim transcripts ensured understanding of the meaning of ambiguous statements without undertaking premature interpretation of responses. It is important to mention that all interviews were conducted in English, non-native to participants. However, this did not constitute a problem due to sufficient language skills of respective managers.

As the previous sections have shown, increasingly scholars such as McLellan, MacQueen and Neidig (2003), for instance, confirm the requirement to regard transcription as an essential part of data analysis. In this particular study, however, the interview transcripts were important prerequisites for the realisation of the latter but nonetheless completely detached from later stages of the research process, both in reflection of the chosen pathway within the methodological landscape as well as in terms of a time gap between data collection and data analysis of a minimum of three months, depending on the individual interview dates. This period may be described as "sense-making" period and proved very important with regard to a reconsideration on the original aim and objectives of the research.

During the data collection process, semi-structured interview question protocols were employed; still, it is important to note that they only acted as a broad structure for the conversations with "informants" rather than prescriptive tools. In the period following the pilot study, this essential document has gone through an extensive process of modifications, re-evaluations and extensions in order to set the foundations for a confined yet in-depth concentration on the focal point of enquiry: dynamic capabilities building. Specific actions associated with the

definition of "sequences" of a priori interview themes facilitated overall data generation. The revised version is attached to **Appendix B**.

Naturally, due to the evolutionary process of the study and respective acquisition of interview skills, subject knowledge and experience, the reliance on these protocols decreased sharply in advanced periods of data collection. Simultaneously, the number of probing and follow-up questions increased as data collection progressed. The former was also a direct result from the findings from pilot interviews, i.e. the required avoidance of broad conversations covering a variety of themes, replaced by deeper, narrower engagement with DCV-related issues. Hence, the acquisition of interview skills over time represented perhaps one of the most important elements of the research exercise and the overall learning process.

All interviewees were of Russian origin and in senior positions. This triggered a number of practical issues for consideration within data collection procedures. Three broad categories of influences on access merged.

- Cultural idiosyncrasies
- Subject-specific factors
- Industry-specific factors

The elements on the list above are now explained in more detail. First, the steel industry was characterised by a relatively oligopolistic structure which, consequently, resulted in a relatively small number of senior managers. Naturally, relatively few employees work at the top level of organisations; hence identification of interviewees was restricted in terms of respective positions.

In addition, certain practical difficulties need to be mentioned. Before any participant agreed to engage in the process, a lengthy process of explanation of research purpose, confidentiality and anonymity and trust establishment was necessary. In particular the latter was of special importance because of interviewees' initial reluctance to engage in the process. This may be partly due

to their country background and an initial level of scepticism with regard to "outsiders", in this particular case a different nationality, as in the case of the researcher.

Moreover, the subject matter of dynamic capabilities encloses a number of strategic issues and internal processes which may not be intended for wider dissemination. This is confirmed by Okumus, Altinay and Roper (2007:9) who argue that "organisations are dynamic and complex places and outsiders are not always welcome, particularly those asking what may be perceived as sensitive and awkward questions about firms and managerial actions". Furthermore, Bryman and Bell (2007) and Silverman (2005), for instance, point toward practical difficulties in gaining access to research participants.

Still, further issues certainly added to the "dilemma" of the methodology. In order to gain access and simultaneously protect the position of study subjects the researcher had to arrange preliminary meetings which preceded actual interviews and had the following exclusive purpose: to establish trust and decrease anxiety of participants. The latter group of individuals expressed the desire to set up these initial conversations which, in many cases, lasted up to one hour. In this context, interviewees asked a lot of questions about the subject but also about the researcher, his background and his *personal* reasons to undertake this piece of research. Also, it became clear that senior managers had to be briefed on employed terminology in order to facilitate standardisation of findings from interview data. Overall, gaining of access to informants and permission to review formal, internal reports which acted as complementary documentary evidence was a complex process which stretched over a period of several months.

Okumus *et al.* (2007:23) confirm the importance of the aforementioned issues, in particular the central role of access and trust in case study research. They emphasise that transparency regarding details and challenges of data collection is an important element of the overall exercise which, in turn, relies heavily on "negotiation and renegotiation at different stages and with different members of

the enterprise". Reflection on practical conduct of the current study appears to confirm these practical obstacles.

Data triangulation and tests

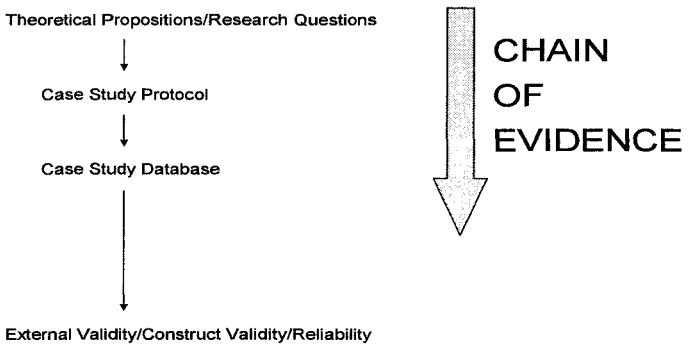
Because interviews were not the only origin of data, the description of the unit of analysis once again highlighted the requirement of "data triangulation" (Patton, 1987). In other words, the case study and subordinate multiple units of analyses drew from an incomplete list of different sources of evidence or a combination thereof, dependent on their individual characteristics and with the objective to present a converging line of inquiry. These were namely data base documentation arising from the research, archival records, management reports and personal interviews.

According to Yin (2003a:99) this procedure must be clearly distinguished from other types of triangulation, such as employment of different methods, for instance, which was not applicable for this particular study as the single-case study was the exclusive research strategy chosen. Furthermore, the employment of multiple sources of evidence contributed towards the establishment of construct validity, a test which normally requires employment of further, project-specific measures: to give an example, all interviewed managers verified interview transcripts and confirmed their accuracy. A typical interview transcript can be found in **Appendix C**.

Furthermore, it is essential to construct "chains of evidence" in case study research in order to both increase construct validity and to achieve *reliability*, an attribute which will be explained in more detail in the remainder of this section. Data analysis resulted from a linear and logical sequence of development of theoretical propositions from the literature review in accordance with the initial research questions, case study protocol as outlined above and building of a case study database to allow for a transparent process of academic enquiry. In order to accomplish this, sources in the case study report were directly connected with these procedural elements. The rationale of the chain of evidence is summarised in the figure below: special emphasis lies on the three main test criteria.

Whereas the chain of evidence directly impacts external/construct validity and reliability of the study, significance as a test criterion only derives from the nature of the research problem, its central role and verified importance with regard to dynamic capabilities within strategic management as a subject discipline and is therefore not included in the illustration below.

Figure 5 The Chain of Evidence



Source: adapted from Yin (2003a)

Case study protocol

The basic structure and broad outline of the case study protocol for the main unit of analysis can be found in **Appendix D**. The included case study questions represented a synthesis of the overarching research objectives and the theoretical propositions as well as the underlying foundation of the employed interview questions and are included in the case study protocol outline. Although the structure initially guided the case study research, it has naturally been subject to subsequent changes as the research developed. Closely related to the case study protocol are the following two documents: first, the chronology of semi-structured interviews including the list of interviewees with unique identification codes is attached to **Appendix E**. Second, the list of confidential management reports and their unique identification codes is attached to

Appendix F, with an exemplary short extract from management report KN-R2 in **Appendix G**.

Data collection procedures

The above introduced action and documentation sequence facilitated a reliable conduct of the research in a transparent manner; with clear procedures, extensive documentation and simultaneous building of a case study database. The latter means a clear distinction of the case study report and the raw data, with the latter being available for independent inspection resulting in increased reliability (Yin, 2003a). In this context, case study notes have been created incorporating interview transcripts, audio files, evidence of written correspondence and company documents.

In the context of the final important pre-condition relevant for research design and thus data collection as described within this section, Yin (2003a:162) argues that case studies should strive to achieve the briefly mentioned criterion significance; in other words thorough understanding and knowledge of existing research is necessary to identify a research problem of theoretical and practical relevance. Due to both the nature of the unit of analysis as discussed in great detail in previous sections as well as the literature survey and its influential status concerning development of the former, it can be assumed that this specific criterion applied. Given this observation, it becomes clear why a substantial proportion of the active research period for this thesis was exclusively concerned with acquisition of knowledge and establishment of the theoretical foundations; thus preceding the clarification of the exact research questions and objectives.

With regard to the research strategy as described above and its central position within the doctoral study, the latter followed an "outside-in" approach, starting with the wider contexts and selected background information mainly associated with the Russian steel industry and the players under investigation. Close inspection of the latter two did not represent the main focus of but nevertheless

facilitated understanding of the central conceptual issues associated with the case study.

During the course of this study, it became clear that any geographical labelling of the steel industry is hard to justify. In other words, it is difficult to speak of the "Russian steel industry" when the majority of players are operating in a variety of countries and actively increasing their presence in other parts of the world through frequent and radical acquisition activities. At the same time, as supplier of a relatively universal product the global steel industry was subject to massive, ongoing consolidation. Nevertheless, cultural factors played a certain role with regard to access to interview data and are explained in the remainder of this section. Whether context-related issues had a direct impact on the case study results is questionable, given the influence of industry-specific rather than country-specific constraints on dynamic capability building as identified in Part 3 of the study.

As stated earlier, reliability is reflected in the fact that data collection procedures can be repeated with the same results, due to clear adherence to the chain of evidence (Bryman and Bell, 2007). It is unlikely that any repetition of this process would result in different results solely based on contextual factors. On the other hand, construct validity was achieved through correct operational measures (case study database[24]) and verification of interview transcripts and was affected by individual rapport with senior managers rather than their national background.

5.5 Pilot Study Experience

Piloting appears to be highly recommended. Bryman and Bell (2007), for example, describe the important role of the latter with regard to functional tests of research instruments, their fit into the wider research design, real life applicability and early anticipation of possible problem areas within the conduct

[24] The case study database consisted of records, reports, interview transcripts and correspondence

of academic studies. Three semi-structured interviews with managers and senior managers of a Russian steel company were conducted in February 2007. Access was facilitated by an intermediary from Newcastle Business School and an initial meeting was set up. Subsequently, the project was discussed and individual participation confirmed.

At the time of the pilot interviews, participants were active members of and directly involved with strategic planning and decision making in their organisation and knowledgeable about the business realities of the industry setting under investigation. This particular knowledge derives from their accumulated work experience, their specific roles and responsibilities as listed in subsequent sections and is reflected in interview data. A detailed outline of interview themes and questions was developed prior to the pilot interviews in order to facilitate the actual semi-structured process; in line with the literature survey conducted and the overall research questions of the study.

Findings from pilot study

In the following, findings from the pilot study are outlined. A brief indication of initial observations following the pilot in order to emphasise the nature of the research journey is given and are not in any way representative for the extensive data analysis processes which formed the basis of subsequent chapters:

- Participants tended to share similar views concerning industry characteristics and analysis: this applied in particular to identification and emphasis of the importance of control and supply of raw materials. No evidence emerged from pilot data concerning existing routines and processes for internal analysis of firm resources.
- A general commonality of themes could not be observed from the pilot study. However, individual comments suggested a certain degree of strategic "complacency" - with regard to acknowledgment of business realities and frequently expressed through the view that Company X, the anonymised business organisation of participants, found itself in a comfortable position within a stable environment at the time of the pilot

study. One participant suggested the lack of future-related business strategies as short-term profit generation had management priority. The influence and role of the strategic planning department within the wider organisation and with regard to management decisions appeared to be somewhat limited.

- Two separate, contemporary streams of M&A activities were identified within the organisation: first, continuous acquisition of local raw material suppliers as a response to industry characteristics. Second, attempts to acquire direct competitors in order to gain access to knowledge bases within target companies and in order to prepare the organisation for unrelated diversifications in the future. Participants indicated failure to realise the latter strategy.
- Pilot interviews revealed that participants preferred very specific over more broad conversations - this included explicit incorporation of questions about the business organisation Company X and/or the individual's roles and function therein. In terms of depth of responses, such questions appeared to be generating more suitable data than abstract or purely theoretical questions.

The findings from the pilot study resulted in changes for the conduct of the research and are described below.

Changes from pilot study

Initial evaluation of collected data revealed a number of implications for the conduct of the main study. As mentioned earlier, a document outlining interview themes had been employed as a guidance tool for the conversations with participants in the pilot study. Nevertheless, it was necessary to reduce the number of interview questions in accordance with the theoretical focus of the enquiry. Experience from the pilot interviews showed that questions under the broad heading "management theory" were unlikely to provide suitable data. This is due to the fact that participants had obtained senior positions in their organisation; the managerial perspective thus constituted a natural attribute of data themselves. For this reason, an explicit emphasis on "gaps" between

theoretical knowledge and practitioners' perspectives proved counter-productive to the aims of this project and was consequently avoided in the main study.

Furthermore, the pilot interviews resulted in identification of a number of areas for improvement: for example, there were attempts to cover a broad array of themes in a very short period of time. This, however, was incompatible with the level of richness and in-depth exploration required for this doctoral investigation. Additionally, critical reflection on the process of pilot interviews revealed that the target group of participants were not always directly involved with M&A activities. Therefore, the focus shifted towards an examination of DCV-related issues and away from pure application of the latter on the M&A process and further refinement of research objectives.

Finally, the need to verify narrative accounts and to generate additional information resulted in the decision to employ management reports as documentary evidence as clarified earlier. In the following, a detailed description of the approach towards data analysis is presented.

5.6 Data Analysis

General issues

Many researchers (e.g. McLellan *et al.*, 2003; Guest and McLellan, 2003; McCormack, 2000a; 2000b; Ryan and Bernard, 2003) have investigated the processes and difficulties associated with thematic analysis of data. Often, data are reflected in large quantities of text, such as verbatim transcripts or databases. This represents challenges of a very general nature as the synthesis of large amounts of texts is naturally dependent on appropriate organisation and establishment of thorough analysis procedures. In this context, major difficulties may be associated with the avoidance of lost theoretical and practical foci and gradual shifts towards "narrative" accounts based on simple listing of interview quotes, for instance; such action, however, may be counter-productive with regard to adherence to widely accepted academic standards.

Thus, special attention must be dedicated to a number of critical issues and their direct and indirect implications. The following section will briefly review general aspects which result from utilisation of data generated from the narrow range of sources aforementioned; subsequently a clarification of the main analyses processes is presented. Finally, an outline of the wider fit of research problem, strategy and design, data analysis methods and the exploration of dynamic capability building processes concludes the account of the methodological pathway for this research endeavour.

One of the major decisions following the identification of research questions and research strategy, establishment of research design and choice of data collection methods was concerned with the employment of computer-assisted qualitative data analysis software (CAQDAS). This is due to a number of project-specific issues which are described below: nonetheless, it is of preliminary importance to emphasise the prevalence of certain general debates within academic circles and research communities questioning the benefits of respective software packages.

The general discussion is somewhat concerned with the right of existence of qualitative data analysis software per se. Ryan (2004), for instance, focuses on the potential of regular word processors such as MS Word and their abilities to assist the performance of basic functions of qualitative data analysis such as "tagging and retrieving", following the assumption that possible substitutes for CAQDAS exist. Accordingly, major advantages lie in the familiarity with the software, absence of re-formatting procedures and reduced additional costs for purchase and so on. Although these particular aspects may facilitate certain early stages of respective academic enquiry, interestingly, no explanations are presented which support presumed positive implications for the research processes themselves. This is mainly due to a flawed line of argument: Ryan (2004) argues that researchers benefit from employment of word processors.

Yet, the points mentioned above fail to justify such a claim. Although the range of diverse functions of everyday software may continue to attract appraisal, they are unlikely to outperform specific qualitative software with regard to these

purposes. For this reason, no support for the original argument is presented. This is even enhanced by the absence of a clear focus on processes connected with data analysis per se rather than secondary, more operational issues. To summarise, the suitability of word processors for respective procedures or any attempt to compare it with purpose-built programmes is naturally subject to further investigations which are nevertheless beyond the scope of and not directly relevant for the doctoral research.

However, despite these general criticisms, many authors express interest in this particular issue. La Pelle (2004:85), for example, state that MS Word can be used for "coding and retrieving, semi-automated coding and inspection, creating hierarchies of code categories via indexing, global editing of theme codes, coding of face-sheet data, exploring relationships between face-sheet codes and conceptual codes, quantifying the frequency of code instance, and annotating text". Nonetheless, as these actions often require programming skills, possible benefits in practical terms are relatively minor. Therefore, it is questionable whether word processors may possibly constitute appropriate objects for comparison with purpose-designed, CAQDAS. On the other hand, even such software displays a number of limitations: Bryman and Bell (2007), for example, summarise the often expressed main disadvantages as the temptation to quantify data, fragmentation of textual materials, de-contextualisation and incompatibility with certain types of data; an example for the latter could be focus group transcripts and related loss of communication processes.

Furthermore, the pre-defined setting of restricted "types" of analysis based on coding and retrieving text represents a concern often expressed by academics (e.g. Coffey and Atkinson, 1996). On the other hand, CAQDAS may facilitate the organisation of raw data and transcripts and offer complex coding and retrieval functions. Moreover, they are likely to increase rigour in analysis; this is mainly due to enhanced transparency (Silverman, 2005) in the context of development of chains of evidence. Additionally, the possibility to connect inter-related aspects and nodes appears favourable.

Still, the points raised above only reinforce the need to recognise that any decision to employ electronic tools is naturally affected by context-dependent factors and may vary from study to study. For this reason, special consideration must be given to both the nature of the research problem and the collected data. As the latter consisted of a number of in-depth interview transcripts in combination with exclusive management reports but also archival records, ways to increase manageability of data were a major issue for consideration; this applied to both preparation stages and the investigation itself.

Apart from practical reasons and absence of software alternatives as clarified above, the central role of nodes for achievement of the main objectives of this study finally resulted in the decision to employ qualitative data analysis software. The nodes were thus derived from a number of domains of inquiry and their subsets of domains. Guest and McLellan (2003:190) observe that "domains of inquiry are established prior to analysis and are applied to segments of text that include both the interview questions and the accompanying responses". The statement indirectly confirms the clear dependence on the research objectives. In this particular case, domains of inquiry included various stages of dynamic capability building processes and associated sub-themes based on implications of the former as identified in the literature survey. Nevertheless, the relatively narrow focus of the thesis resulted in subsequent exploration of implications of dynamic capability building processes on secondary themes such as mergers and acquisitions, not vice versa or through independent, subordinated investigations. The software supported this rationale.

At the same time, a number of constraints applied: first, clear awareness of the associated risks had to be continuously demonstrated throughout the data analysis stages in order to approach and fulfil relevant test criteria. Furthermore, CAQDAS represented a facilitating tool of various stages of data analysis. Thus, it did not constitute a main element thereof and required clarity concerning its relatively limited role within the process. This is confirmed by Fielding and Lee (2002). They put particular emphasis on the fact that qualitative software does not represent an analytical procedure but merely acts as a technical resource to

assist the former. In other words, the analytical approach remains detached and must be explained separately in order to avoid misleading justifications and confusion concerning the description of modes of engagement.

As Bryman and Bell (2007:604) put it, CAQDAS "cannot help with decisions about the coding of textual material or about the interpretation of findings". Thus, their employment per se can not under any circumstances symbolise means to an end within the research process or even replace elements thereof, instead, a thoughtful appreciation of their advantages, obvious limitations and possible pitfalls may offer benefits which outweigh the increase in data preparation time and familiarisation with new software.

In order to *support* organisation of transcripts, documentary evidence and coding of the transcripts, the specific software package QSR NVivo7 was used. Miles and Huberman (1994:316) confirm that Nudist, the technical foundation of the programme, offers a number of basic functions which were deemed particularly beneficial for this study. They are namely "coding", "search and retrieval", "database management", "data linking" and "theory building" On the other hand, it is important to consider the following aspects *prior* to selection of software packages.

> The type of qualitative data collected, its volume, its complexity, the type of analysis to be performed, the desired analytical output, and the number of researchers who must access and analyse the data" (McLellan *et al.*, 2003:72).

Henceforth, these characteristics were acknowledged in the decision process. The latter itself took place *after* completion of the pilot study and the majority of data collection for the main study in order to be sufficiently knowledgeable about the nature of data sets and respective main features. Still, access to the raw data in the form of archival records and interview transcripts and the decision to employ NVivo7 represented only initial steps of the wider data analysis process. The following section will describe the measures taken towards application of robust data collection in order to provide support for the development of a chain of evidence through documentation of research

procedures. Special emphasis is put on the links between data collection and data analysis.

In the case of interviews, the data collection process does not end with the actual conversation with participants. A number of writers (e.g. McCormack, 2000a; 2000b; McLellan *et al.*, 2003), outlined the necessity to assign particular emphasis to the preparation of transcripts from digital devices which naturally precede the actual data analysis stages but are nonetheless highly influential for the research exercise. A possible example is standardisation of transcripts as a prerequisite for successful implementation of computer-assisted analysis. However, apart from technical and process based issues such as data storage and verification, one of the most fundamental tasks is possibly associated with the identification of themes from data. In this specific study, the need to engage in such courses of action mainly derived from the coding based on domains of inquiry. It is important to outline that the broad pathway of theme based analysis was influenced by the previously conducted extensive literature review but not exclusively determined by the latter. The coding process itself resulted in emergence of patterns and themes and requires specific clarification. Thus, identification of the research problem, not methodological choices or the nature of the collected data determined the realised data analysis procedures.

Theme based analysis

According to Cassell, Symon, Buehring and Johnson (2006:294), in "template analysis, the research produces a list of codes representing themes identified in the textual data". However, the implied causality between codes and themes is not automatically pre-defined. Conversely, this issue depends on the specific research approach; in the following a preliminary review of certain terminology is provided: in the literature, proliferation of expressions for "themes" created confusion in the past. To state an example, arguably subject to debate, respective differences are often justified by epistemological underpinnings. Glaser and Strauss (1967), for example, describe them as "categories" and relate this portrayal back to their seminal work on grounded theory. Thus, foundations are established which offer space for engagement with classification and

interpretation of data through emphasis on context, selection and consequences and subsequent creation of theory thereof.

Yet, more important than written dissimilarities in description of the phrase are perhaps existing definitions. Ryan and Bernard (2003:88) portray themes as abstract constructs and connotations of fundamental concepts. They "come from the data (inductive approach) and from the investigator's prior theoretical understanding of the phenomenon under study (a priori approach)". According to this declaration, the research approach affects the identification of themes to a large extent. Still, it is questionable whether a priori approaches to research eliminate the sudden emergence of themes from data. In such hypothetical instances, the need for data collection would only apply to inductive studies. Yet, this is unlikely given the nature of nearly all scholarly activities. Also, certain major contradictions derive from the assumption that all themes are pre-defined if theoretical propositions exist: in the context of case study research, for instance, Yin (2003a) explicitly emphasises the need to allow consideration of alternative perspectives and rival propositions in order to conduct exemplary research. Nevertheless, this possibility is removed if the existence of unanticipated themes in general or their emergence in the course of the research is questioned, rejected or ignored altogether.

In other words, certain openness towards the identification of themes is necessary regardless of the research approach; otherwise the basic foundations of academic enquiry are undermined. A further major consideration in the context of themes is the requirement to make the investigator's judgements explicit and clear, particularly if the former played a role in identification of themes. Only if this condition is met, "readers can argue with the researcher's conclusions" (Agar, 1980:45). This objective is of particular importance with regard to the specific test criteria validity and reliability as outlined earlier and introduced within the data collection section of this chapter.

It is important to note that the analysis within this thesis examines the managerial perspective of individuals employed in the Russian steel industry only - the latter represents a geographically relatively narrow context. For this

reason, any statements made within the analysis, both by interviewees and through critical evaluation, exclusively refer to this context and must be approached through awareness of specifics of the outlined background. This information re-emphasises the objective of *analytical generalisation*, in line with the clarification of contextual research as earlier introduced. Deep understanding of background and context is perhaps the most important pre-condition for credible data analysis within this study. Henceforth, the central position of industry analysis appears fully justified for achievement of the research objectives. Nevertheless, acknowledgment of the managerial perspective does not automatically imply the absence of criticality in the analysis. The doctoral research was only informed by the managerial perspective but mainly conducted from the DCV lens. For this reason, dynamic capabilities are the platform from which managerial statements are analysed and evaluated - and not vice versa.

Dimensions of criticality

Three dimensions of criticality formed the basic philosophy for analysis and explanation of dynamic capability building. Firstly, contradictions within collected data themselves and hence based on the isolated, managerial perspective. Secondly, comparison of the latter's content with the theoretical constructs of the DCV; in this case implying a position which did not question the latter's theoretical main assumptions. Thirdly, critical evaluation of dynamic capability building processes within the steel industry. In this final dimension of criticality, the DCV was applied to a narrow industry and geographical context and thus "tested" in reality. In order to allow for relevant findings deriving from this application, the DCV itself was subject to critique in this instance. This is because any in-depth study conducted from a DCV lens follows an open approach regarding the outcome of the process, in particular if it may question certain main foundations of the accumulated DCV body of knowledge to date.

In this respect, the DCV itself formed the subject of study, as reflected in the earlier outlined units of analysis, and both industry application and managerial input facilitated such pursuit in the first instance. Following this major rationale

of the study, collected data acted as provider of industry-specific information only but nevertheless established the real life parameters and cornerstones of the industry-specific application of dynamic capabilities. In other words, the analysed snapshots from the time of the case study were defined through the narrative accounts of managers who, in turn, described their "felt" realities based on experiences within the Russian steel industry, subject to dynamic forces most relevant within the narrow time frame under investigation. Due to the complexity this statement naturally implies, it is of particular importance to re-emphasise that the managerial perspective did not represent the major unit of analysis. Instead, it formed the minimum requirement to allow any approach to dynamic capability building from a strategic perspective, mainly because of the nature of strategy which naturally falls within the area of responsibilities of the senior level of business organisations.

Any exploration of the theoretical concept is therefore somewhat dependent on availability of data collected from this narrow group of individuals as research credibility and the subject itself naturally requires respective information. This implies, on the other hand, that practical applicability and relevance are not the major criteria for the study but rather the latter's realisation and insights on dynamic capabilities may only emerge from real life data and are thus not sustainable as autonomous units, hence somehow reinforcing the criticisms on existing DCV literature in Chapter Three.

In the following, study-specific actions related to data coding and retrieval are explained in more detail: although data collection and standardisation are of utmost importance for the research process in general and due to their natural characteristics influential for data analysis in particular, they may not always constitute elements of the latter.

Templates and coding

In the case of the presented research, the two were clearly building on each other. For this reason it is significant to define the boundaries and thus provide a logical foundation for separation of elements. This necessity is particularly

enhanced with regard to the intention of transparent scholarly action. Hence, the emphasis on the specific role of *coding* and associated processes: Silverman (2005) describes codes as labels for assigning units of meaning to the information compiled during a project. For a number of logical reasons, the combined entity of processes summarised under this broad heading are elements of data analysis and not just preparation stages thereof. This is because any attempt to create meaningful codes from data sets requires very careful and rational moves in order to protect context and existing connections between sections.

King (2004:256) states that "the term template analysis does not describe a single, clearly delineated method but refers to a varied but related group of techniques for thematically organising and analysing textual data. Earlier, the relevance of both the focus and subject of study as materialised in the research questions as well as the themes "emerging" from data sets have been clarified. In short, themes were neither completely pre-defined nor purely inductive. This had a major impact on the creation of codes. Miles and Huberman (1994:58) recommend the creation of provisional lists of codes prior to fieldwork and deriving from "the conceptual framework, list of research questions, hypotheses, problem areas, and/or key variables that the researcher brings to the study." Although such a list per se was not compiled prior to data collection, the researcher found it useful to clarify the broad categories of a "start list".

The former resulted from insights from the literature survey, respective theoretical propositions and the overall research and case study questions. Subsequently, these categories were incorporated into the earlier introduced and attached interview protocols. This specific approach supported the aforementioned nature of the inductive study with its reluctance to adopt extreme and as such exclusively deductive or oppositely placed "grounded" methodologies. To summarise, *categories* of first-level coding were well known after review of the existing theoretical body of knowledge; the *codes themselves* were only created after completion of main study data collection. On the other hand, the second phase of coding, "pattern-coding" was more inductive in nature and purely led by insights from data. The list of coding categories is

presented in **Appendix H** and complemented by the raw code manual in **Appendix I**. Furthermore, an example node from the employed software package is added to **Appendix J**.

5.7 Ethical Issues

The research involved interviews with individuals. Special emphasis must be given to the fact that the interviewees were members of an organisation at the time of the study and were initially reluctant to provide information which could have compromised their individual future careers if made public. Therefore, certain ethical issues did arise. In order to address these issues, the protocol as described below has been strictly followed throughout the research process: all conversations were conducted in complete conformity with and adherence to Northumbria University's ethics policies at all times. Confidentiality (not passing on the data collected) and anonymity (not revealing the identity of the individual) were guaranteed. Results of this study were only employed for purpose of doctoral research, the company name or individual's names have not been revealed at any time.

Participation in this study was voluntary and participants had the explicit opportunity to withdraw at any stage, or avoid answering any question that they felt were too personal or intrusive. Furthermore, participants could decide to stop the recording and/or terminate the interview at any time. Because digital audio recorders have been used, participants had the opportunity to record over any responses or parts of the activity. Nevertheless, no participant chose to follow such action. Still, a number of participants requested temporary suspension of digital footage in order to offer confidential responses. In those limited cases, recording was often resumed after a period of less than a minute. The process thus addressed best practice guidelines as widely described in the literature (e.g Cassell *et al.*, 2006; Richards, 2005; Silverman, 2005; Gill and Johnson, 2002).

For the purpose of data analysis from interviews, only accounts documented within transcripts were employed and "off the record" statements were

disregarded, unless they neutralised or contradicted original statements. Such a situation did not arise, however. Furthermore, as part of the review process, encoded transcripts of the conversations were forwarded to participants to ensure accuracy and provide them with a formal opportunity to change or amend content and/or correct any errors; as mentioned earlier, this action resulted simultaneously in increased reliability of the study. Nevertheless, due to the earlier described anonymous and confidential nature of the research conduct, participants had no objections against the employment of the original transcripts. Some interviewees offered to add further, written comments and explanation to their previous responses; these have subsequently been incorporated into the study. With regard to the management reports, individual ethical clearance has been sought in order to protect the individuals involved.

5.8 Limitations

One of the limitations of the chosen methods may rest within the study's reliance on a relatively limited set of available interview data. As Appendix E indicates, a total number of twelve semi-structured interviews with thirteen participants were conducted in 2007. However, in addition to these particular data, further, independent sources of evidence as listed earlier were utilised, namely sixteen restricted access management reports which represented unaltered views from the senior managerial and managerial perspective in the Russian steel industry, clearly developed from a strategic perspective. The total amount of data from this specific source in combination with the interview transcripts exceeded 170,000 words and appeared sufficient for the purpose of this study and its specific objectives. Data evaluation must also be seen in the wider context of the industry sector as mentioned above and its idiosyncratic attributes as well as both data triangulation and the implemented course of action.

Access to interviewees within the target group had to be individually negotiated and was subject to short "time-windows" due to geographical distance. Often, individuals were initially reluctant to engage in the study and in most cases a series of follow-up meetings was necessary before interviews could be arranged.

In terms of the overall learning process, the constant need to justify and explain the purpose of the study to an audience of professionals ultimately proved beneficial with regard to the managerial focus of this study.

Additionally, relatively small numbers of suitable individuals at the senior management level of the Russian steel industry were identifiable. Nevertheless, this "exclusiveness" ultimately resulted in a more narrow focus and appeared favourable in relation to the objective of analytical generalisation for external validity as outlined before. Finally, the specific amount of interview data necessary for conclusion of academic studies has historically been subject to lively debates: to state an example, as a result of a relatively recent investigation of data saturation and variability over the course of thematic analysis based on in-depth interviews, Guest, Bunce and Johnson (2006:74,78) conclude that data saturation occurred by the time they had analysed twelve interviews out of a total number of sixty interviews. Accordingly, "after analysis of twelve interviews, new themes emerged infrequently and progressively so as analysis continued and [...] a sample of six interviews may have been sufficient to enable development of meaningful themes and useful interpretations".

The statement confirms the general observation by Miles and Huberman (1994:55): accordingly, "data collection is inescapably a *selective* process". However, limited amounts of data may only be sufficient if certain conditions are met. In the particular case of interviews, this is subject to relatively homogenous groups, good quality of data, and precise, clear domains of inquiry. Still, these specific criteria were applicable for this study; first, all interviewees were holding similar positions within the Russian steel industry at the time of the study and were based in one restricted geographical region, the Russian Federation - with the exception of one manager who was temporarily located in the North American subsidiary. Second, the establishment of the earlier mentioned chain of evidence assumed a high standard of data quality. Finally, identification of domains of inquiry was entirely transparent and limited to the defined focal points of study.

A further indicator of the applicability of the specific issues raised by Guest *et al.* (2006) above is the fact that neither assessment of variation between distinct groups nor correlation between variables constituted aims of the research process. Also, the employment of multiple, triangulated data sources, resulted in an overall sufficient and appropriate amount of generated data for the purposes of this study. Thus, with regard to both the narrow focus and the nature of the research problem, it is important to emphasise that data quality and employed data analysis techniques as described earlier were more influential variables for the conduct of this research than actual data sizes.

5.9 Summary

The research design is the direct outcome of a number of important decisions that perhaps constitute the most significant elements of the research process and were made in order to ensure fit of the basic elements of the research design with a conduct of research suitable for approaching the research problem in an appropriate manner. In the following and within the confines of the ontological and epistemological viewpoints as outlined earlier, a summary of these choices is presented:

- **Research strategy:** a case study has been selected as the most appropriate pathway for an exploratory *and* explanatory effort to approach the research questions with their focus on both process and content related issues associated with dynamic capability building. Therefore, the research framework was engaging with the "what" question of the nature of dynamic capability building in the Russian steel industry and the "how" question with regard to the impact of M&A activities on these processes.
- **Data collection methods:** Semi-structured interviews, documentary evidence from archival records and management reports contributed to database documentation and were employed in order to increase construct validity through data triangulation.

- **Data collection process:** The pilot study verified the identified research problem and the theoretical and practical research gap. Furthermore, it provided means for re-evaluation of previously developed research questions and respective updating processes. The interviews highlighted the role of dynamic capability building for competitive survival within the industry under investigation and furthermore allowed for insights into the process based nature of respective managerial actions.
- **Data analysis:** CAQDAS supported theme based analysis of both pre-defined and emerging theoretical and practical issues related to dynamic capabilities building and its subdivisions, thus establishing a "closed circuit" from the research problem via the case study strategy and its unit of analysis back to the overall research questions. Themes were retrieved through *first-level coding* resulting in summaries of segments of data and subsequent *pattern coding*. According to Miles and Huberman (1994:69), the latter represents a possibility to group sets of data into smaller number of themes. Thus, one of the main functions of pattern coding may be described as "reduction of large amounts of data into a smaller number of analytic units".

PART 3: PRESENTING THE EVIDENCE - CASE ANALYSIS, DISCUSSION AND EVALUATION

The first and second part of the thesis have established the research foundation and introduced the practical and methodological steps considered appropriate and suitable for achievement of the earlier described research objectives; in particular the identified gaps in existing academic knowledge acted as a starting point and theoretical orientation for the research endeavour.

In line with the earlier justified research strategy, the following examination of chapters 6-9 derives from the theme based analysis of primary data, namely semi-structured interviews and management reports. It is divided into four distinct yet logically connected chapters; the latter reflect the main categories of themes emerging from the two-stage data coding processes:

- Clarification of the managerial perspective
- Detailed analysis of steel industry characteristics - including assessments of levels of competition and future related macro environmental factors
- Review and strategic assessment of mergers and acquisitions in the steel context
- Internal analysis of specific strategic processes within Company X
- Dynamic capability building in the steel industry
- Evaluation and reflection

With regard to data analysis, it is important to note that it is **difficult to present the findings without simultaneous discussion and evaluation**, due to both nature and complexity of dynamic capability building processes. Consequently, the ensuing chapters have been organised around themes emerging from data and are characterised by respective content.

Subsequently, key findings and clarification of the original contribution to the field of study are presented in the final chapter of the thesis.

CHAPTER 6: STEEL INDUSTRY ANALYSIS

6.1 Management Theory and the Managerial Perspective

In the following, some details are provided which put the main unit of analysis, dynamic capabilities building in the Russian steel industry, into the wider context of the analysed managerial perspective. Additionally, it is necessary to clarify the links with and general characteristics of management theory from this specific outlook.

A central theme within the case unit of analysis was the managerial perspective. The underlying rationale has previously been specified and justified in Chapter Five. Any attempt to derive industry specific theoretical findings for the Russian steel industry and dynamic capability building processes presupposes clarity concerning this lens of observation. As mentioned earlier, the research was informed by the managerial views on the issues under investigation, yet influenced by the DCV and detached from any prevailing dominant discourse in strategy. For this reason, the presented case analysis focuses on themes and insights deriving from the two-stage coding processes.

Managerial view

The consideration of tensions between theory and practice as well as "admission" of alternative perspectives from the analytical procedures represents an important criterion for exemplary case study research, according to Yin (2003a). An example for a critical view concerning the practical relevance of existing concepts as accumulated in strategic management over the past five decades or so is the comment below by a manager involved with strategic processes within Company X[25]:

[25] Employment of Unique Identification Codes as introduced in Chapter Five. The first two letters identify the individual participants; the "I" stands for semi-structured interviews. Where management reports have been employed within this and subsequent chapters, the final letter of the ID code is "R".

SN-I: [...] they [theoretical frameworks and tools] are just a base for analysis. Maybe there is more fear in such a dynamic situation. And maybe reliability of this analysis is less than five or ten years ago.

The significance of this statement is increased by the fact that the comment was made by an individual who just recently completed an MBA. This implies awareness of at least some cutting-edge theories from peer-reviewed academic journals.

Emphasis on the changing nature of strategic analysis within dynamic environments represented a recurring theme and is related to evaluation of DCV findings in the remainder of the thesis. The requirement to incorporate the changing nature of strategic analysis was acknowledged in theory. Nevertheless a discrepancy emerged with regard to the actual daily routines of strategic managers - through reported or observed absence of such adjustments. For this reason it is necessary to follow up the question whether industry-specific factors were responsible for this divergence or if it was due to unknown, perhaps less obvious factors. LV-I provided the following comment:

LV-I: I think that today some intangible things are more important that you can't ..., some feelings, some intuitions, some relations, this is more important in the real business. I think. But of course you have to know all frameworks and theories in order to reach the next level. Or in order to understand the business.

The basic need to conduct certain types of strategic analysis such as, for instance, simple macro environmental scanning of PESTEL related future trends was acknowledged. But their application to business realities of the Russian steel industry was indirectly rejected. This was based on the perceived absence of any direct or automatic links with general business success or failure within the narrow industry under investigation. In other words, the status of management theory was not positioned higher than isolated elements of daily work routines and its practical value considered relatively low:

LV-I: How can the PESTEL analysis help me? I don't know. I don't know. Maybe I have to know it because actually my boss, if I come to him and say: I have the project, this is the result, this is the investment, [...], he says: did you do a PESTEL analysis? And I say: Oh, of course I did it, look at this. Did you do a SWOT analysis? Oh, of course I did this.

It is therefore necessary to establish whether the perceived little value of such analysis is justified or could possibly be criticised on this basis. A logical problem emerges. Individual judgement presupposes clear understanding of far and near environments at the time of the study. Such knowledge, however, can only be gained through practical *application* of the procedures which were indirectly rejected by managers (Amit and Shoemaker, 1993).

In other words, it can not be argued that analysis is not necessary because of specific characteristics of the steel industry in Russia if these claims lack respective knowledge. If the conclusion is not based on the outcome of certain analytical procedures, the question arises how this statement could possibly derive its justification in the first place. Furthermore, the perishable nature of such analysis must be taken into consideration. For this reason, the statement made above by the manager responsible for the anticipation of external threats and opportunities appears somewhat problematic. This is further investigated at a later stage within the thesis.

Overall, management theory was simply regarded a 'necessary evil' within higher education, such as, for example an MBA curriculum. According to this position, access to knowledge did not provide any direct benefits for the individual manager despite *potential* means to gain job promotion in an unknown future. Again, it was necessary to recover possible reasons for the negative stance on the issue from collected data in order to be able to rate the significance of certain statements.

However, the theoretical construct mentioned above, namely anticipated career benefits from intensive management studies, did not always match practical realities and hence result in managerial frustration. On the other hand, disturbance of this particular kind could possibly be one reason why the importance of theoretical frameworks was rated low, if made explicit.

Even then, as described in the context of findings from the pilot study in Chapter Five, it is difficult to distinguish between theory and practice for the purpose of exploration of the managerial perspective (Bowman *et al.*, 2002).

That is because managers do not regard this distinction valid, as explained below.

Conversely, comments themselves automatically reflected business realities in the narrow context of the study under investigation. They were thus eliminating the original need to conduct any such divide in the first place - except for analytical purposes. In other words, in doctoral studies the focal point of enquiry is naturally very limited in scope. Simultaneously, the subject area and affiliated scholars regularly attempt to make sense of both strategic decisions made in and realities affecting existing, tangible business organisations. Thus, any *isolated* theoretical perspective appears highly irrational.

Neither the act of assigning any theoretical perspective a higher place in the analytical hierarchy than "directly experienced" realities described by managers nor artificial separation of purely conceptual spheres seems to be appropriate. This is because it represents a move away from the object of study as opposed to an approach towards it. The artificial perspective itself should have no right of existence within the subject discipline of strategic management if it is a theoretical, hypothetical construct which is solely based on unverified assumptions which remain completely detached and ignore real life observations. The criterion of verification is linked with business realities and thus automatically bears a close association with the issue of *relevance*.

Although hard to measure, the continued existence and further evolution of the subject discipline is dependent on further definition and establishment of respective standards across scholarly communities. If an approach towards relevance is not intended at all, however, even not within narrowly defined contexts, conducted research is likely to fall short of a clear purpose (Powell, 2001; 2002). Conversely, it may be questionable why the latter should be even considered for evaluation if such fundamental failure arises. To summarise, perhaps the problem discussed above and its wider implications symbolise indicators of one of the remaining unresolved debates of scholarship in the unique discipline of strategic management.

As an interviewee commented:

SH-I: ...the people who get MBAs [...] just leave as is. They are not promoted to, let's say, to use what they learnt....

What is implied within the statement above is the assumption that any application of theoretical knowledge in the Russian steel industry requires either the occupation of appropriate posts or the willingness to use the knowledge independently. Whether or not this is a specific reality within the national context, due to industry-specific characteristics - or a combination of both - is explored in subsequent sections of this chapter. Moreover, the statement implies a certain absence of willingness to accept duties associated with the conduct of strategic analysis despite general awareness thereof - at least on the management level directly below the chief executive officer and by individuals based within the *strategic planning* department.

This in itself however, is contradictory to responsibilities assumed and exercised by respective participants in general and the official name of the above department in particular. The question arises how useful the establishment and running of such a function within business organisations is, if its affiliated managers refuse to define their work as strategic planning. An action which naturally involves identification, anticipation and preparation for a variety of aspects - which are all at least indirectly future related. Despite this claim and for the purpose of context, the necessity to analyse the specific characteristics of the Russian steel industry is even further increased: a more detailed enquiry of this issue and its implications for complex strategic analysis is provided in the remainder of the chapter.

Intuition

Further emerging contradictions were the somewhat ambiguous role of intuition within the managerial work of strategic managers. In the case of knowledge acquisition or insights from theoretical frameworks, the causal relationship remains unclear. For example, it needs to be established whether theory may

assist the complex explanation of processes associated with intuitive decision making, or, if it is naturally given that pure application of theoretical frameworks replaces intuition as an important fact of strategic analysis.

ON-I: Before the theory was introduced I was making decisions in probably a more intuitive way, now the theory supports intuition by knowledge, saying that I was intuitively right and explaining why.

The statement above indirectly nullifies the practical value of existing strategy theory. In such individual cases, the former is merely employed as means for justification for previously made intuitive decisions. On the other hand, it is difficult to establish whether such decisions were based on "real" intuition: mainly because it cannot be monitored retrospectively to what extent managerial decisions of participants were unconsciously affected by and causally related to their personal, previous management studies. It is at least theoretically plausible that a certain extent of decisions were made without explicit incorporation of known theories but nevertheless indirectly affected by knowledge of basic elements thereof. All participants in this study obtained an MBA degree in the United Kingdom, with a maximum of one year prior to completion of the study. For this reason, a certain degree of influence, consciously perceived through awareness or fully accepted as such or not, cannot be disregarded given the nature of human existence and learning.

In other words, even if interviewed managers chose to ignore the *explicit* employment of strategic tools such as PEST, Five Forces or the Value Chain framework, for example, it can not be ruled out that they did, in fact, regularly attempt to make sense of external factors, conducted analysis of internal factors and guided strategic decision making on the outcome of such informal analysis in the context of daily work routines. This conclusion can only be drawn because of the nature of strategic management, wherein strategic planning is only supported by but not necessarily reliant on the employment of specific tools (Poole and Van de Ven, 1989). On the other hand, the quality of strategic decisions to prepare steel organisations for a variety of challenges as described earlier naturally *does* depend on the conduct of respective internal and external assessment. Its complete absence would naturally represent a dominant position

of random choices made at the managerial level - which is neither likely nor sustainable in the given steel context.

Thus, a relatively high degree of criticality towards management theory existed within the group of interviewees. Despite the specific and earlier justified decision to refrain from additional explicit data collection on this theme in main study interviews - based on the outcome of the conducted pilot study - it is crucial to identify how the observations made above relate to characteristics of the industry-specific processes and dynamic capabilities building and the M&A process. Any findings need to be carefully compared with the earlier discussed key issues from the literature survey. However, to facilitate embarkation on this process, it is beneficial to know to what extent individuals representing the managerial perspective in the Russian steel sector have been affected by factors specifically characteristic of their operating domain and dynamisms.

In the following, insights from primary data shed light on these critical factors and the Russian steel industry and are subsequently discussed in more detail. Industry knowledge is an important step towards the main objectives of the study and thus the research questions. In order to approach them systematically and in line with the overall objectives, in the following a selection of relevant findings is presented.

6.2 Steel Industry Characteristics and State of Competition

From a superficial or purely external view, the industry under investigation was characterised by an oligopolistic structure at the time of the study. A very limited number of major players dominated the entire micro environment.

As an interviewee observed:

> PV-I: In the Russian steel industry [...] six companies embrace 90% of Russian market: Company E[26], **Company X**, Company M, Company N, Company D and Company C. These companies are [...] vertically integrated holdings and have mining assets.

As shown above, Company X formed part of the list by PV-I. However, a number of interviewees [LV-I; SN-I; KN-I; ZV-I] mentioned only three major competitors - mainly based on production of steel grades and production capacities. These players were Company X, Company M and Company N. In-depth analysis of the competitors' role and influence forms part of a separate chapter. In terms of general characteristics, these three major players were geographically spread over the Russian Federation, with little or no overlaps. In other words, it appears that any division of the Russian steel industry into three distinct regions, dominated by one organisation respectively, was fully accepted by managers and senior managers - both as an important factor within the micro environment but also as a satisfying status quo.

However, for a number of reasons outlined below, this viewpoint needs to be challenged. It implies acceptance of strong competitors but simultaneously disqualifies any suitable action to cease such a situation. Regardless of obvious external evaluations in the context of the study, all the same it was *not* perceived as unsatisfying from the managerial angle. Thus, it indirectly questioned the basic purpose of strategic analysis under normal conditions of economic competition (Chaharbaghi and Lynch, 1999; Kay, 1993). If business organisations of similar financial, operational or strategic strength exist yet no efforts are taken to outperform this group, two important conclusions must be drawn: first, the Russian steel industry as defined by the list of companies above behaves like one entity from analytical and strategic viewpoints of evaluation. Second, deriving from the first conclusion, this loose entity is likely to be relatively homogenous internally. In other words differences between Company X, M and N were consequently diminished.

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[26] Fictional names of Russian steel companies are employed within this thesis in order to guarantee anonymity and confidentiality. Steel players based outside the Russian Federation are, however, named by their real names as their business operations can not be directly linked with interview participants.

These two factors have wide reaching implications for strategic analysis of both major players within the Russian steel industry as well as external assessment of industry patterns themselves. For example, data indicated that the strategic beliefs of managers in Company X could *potentially* be very similar to the ones of their direct competitors, for example within the senior levels of Company M and N. This particular account can not be further investigated in more detail due to the limited scope of the current study. Awareness of this limitation, nonetheless, does not affect the logic which rests on interpretation of collected data. Additionally, strategic analysis of the relative strength of individual companies within the steel micro environment in the Russian Federation against the wider background of the world steel industry must take the collective strength of this entity into consideration. This applies particularly to the M&A context where certain levels of financial strength are effective barriers to the acquisition game (Rovit *et al.*, 2004; Schoenberg, 2003).

In summary, despite the absence of a formal fusion of the main competitors in the Russian steel industry, in real terms they already operated similar to one steel business unit within a bigger corporation. It pursued a dispersed quasi trans-regional strategy but had no externally visible or physically manifested headquarters. Nevertheless, as strategic co-operation was apparently incorporated into existing planning processes, it perhaps represented indicators for preparation for possible future attacks against steel players from outside the Russian Federation.

It is important to fully understand this phenomenon. It potentially affects the entire strategy process, not just within Company X and the other two main competitors but the entire Russian steel industry; including smaller business organisations, especially if the three main players embarked on joint strategic action. Although in a period of transition at the time of the study, the managerial perspective revealed a certain degree of complacency with regard to the strategic position. This might be explicable by the somehow artificial establishment of unique conditions of competition as highlighted above.

Implications for macro environmental analysis

The managerial angle regarded the macro environment as stable. As stated above, it is important to note that any perception through the eyes of the participants may not necessarily match business realities but nevertheless reflected felt levels of perception which are central to the research questions of this study. In the following section, the provided narrative accounts are evaluated through the DCV lens and contrasted with external, independent sources. Regarding the complex links of macro and micro environmental issues in the context of the Russian steel industry, some interviewees commented:

LV-I: ...today the Russian companies, I mean steel companies, make a lot of money. For example, the margin in 2006 is about 35-45% in steel industry in Russia. It's very huge and we make a lot of money. And this money is invested, in order to improve our efficiency, in order to improve our quality; in order to increase the range of products [...] the price on steel is pretty stable [...] it's not a new industry; it's not a very highly developed industry. Actually, a hundred years ago, people know how to make steel. And these basic processes are not changed. And it's nothing new in the steel industry in terms of revolution. Of course, the new grades of steel we make have more strength and so on but actually the basic oxygen furnace was invented about 150 years ago.

VV-I: Okay, highly profitable. All steel companies in Russia impressed through IPO processes; and they are owned by exec persons.

CV-I: Yes, for me, I think it's a really fast developing industry [...] I can also say that it is highly profitable and I think that European companies or even global companies are afraid of the Russian steel industry.

High profit margins at the time of the study, single ownership structures, and basic distribution patterns as mentioned above may have resulted in the identified attractiveness of the industry for existing players. As mentioned above, the levels of rivalry appeared relatively minor. Extensive co-operation of the three major players offers an explanation for the following phenomenon: the discrepancy of interviewees' own evaluations of competitive threats and more detached analysis from external evaluation. Managers of Company X mentioned strong relational ties, both with the national government and with respective competitors. The co-operation of the three main players was described in the following words:

KN-I: We have rather strong relationships with Company N and Company M from the 90s onwards. So we know what they do and they know what we do. It's a good chance to be more competitive against foreign companies. I mean in technical areas.

LV-I: ... everyone in the Russian steel industry knows each other. Maybe it's not very allowed, but actually we have the phone calls, we are exchanging information and so on and we try to make the price what we want. That's the first; it is why we don't want to see anyone in our market.

ZV-I: Internally are the 'Big Three' of competitors in Russia, Company N Kombinat, Company M Kombinat and Company X. But competition is not very strong because, as you know Russia is spread geographically as a country and Company M Kombinat mainly dominates the Eastern part and the South, Company X the North West and Company M central Russia.

SH-I: I suppose in the steel industry it's absolutely the same, maybe even higher, the importance of the GR, government relationships because of [...] the political factors. If you want to defend yourself or in order to get something, you need to have good relations with the government.

In very simple terms, the statements clearly imply absence of direct competition within national boundaries. In turn, creation of artificial absence of competition may explain a certain degree of confidence in the current strategic position. At the same time, it is questionable whether the managerial perspective in this specific situation had the ability to acknowledge the limited, insecure and fragile protection manipulated levels of competition offer in periods of dynamic changes. The perceived non-existence of competitors was therefore highly conditional. It would mean that competitive positions were unlikely to be jeopardised by direct competitors - for very limited periods of time only and highly dependent on sustainable states of equilibrium. Threats from competitors from other world regions persisted at the same time as general environmental challenges continued to accelerate away from stable equilibrium (Stewart, 2007). For this reason, the perceived position of comfort was perhaps less stable in real terms than perceived by managers.

Furthermore, it is important to note that any tolerated competition infringements as mentioned above were based on a limited set of specific underlying motives which may have offered certain advantages. For example, attempts to conserve the status of the aforementioned "big three", but also creation of barriers to entry into this narrow geographical area of steel production for foreign competitors would naturally be beneficial to all involved players. Yet, this would apply in symbiotic terms only: in this scenario the three main competitors

co-existed without any "parasitic" side effects. But in terms of an analogy, no symbiosis between two life forms on the planet can offer general or universal protection from external threats - it represents an internal survival mechanism between two or more organisms only.

Furthermore, no symbiosis can persist beyond the death of one of the organisms; in which case both this apparatus was, as a consequence, unable to function and additionally, life threatening problems may arise for the remaining creature. In other words, a certain dependence and fragility is created which certainly acts as a possible counter movement to the build up of critical success factors internally; namely central to independent survival in normal states of conditions which are not characterised by "secret" collaboration. For this reason, the entire construct must be seen critically.

Moreover, faced with real competition and dissimilar parameters in the *world* steel industry, the combined entity of Russian major steel players would lose the protection and thus its major competitive advantage within the domestic market. Also, any national or regional benefits would naturally decrease at the same rate as consolidation of world steel industry increased, thus offering little or no value in general within an obvious period of major transition of the wider environment. Nevertheless, the described co-operation certainly represented a unique phenomenon. The question arises whether its existence and scope of this action was known to outside competitors at the time of the study. Thus, did it represent an open secret or were steps taken by Russian steel players to camouflage the degree to which competition was manipulated or even eliminated?

The industry structure is based on relatively minor degrees of competition. However, it may not automatically be attractive in strategic terms (Porter, 1985). A number of factors indicate the opposite. For example, the profit margins of the major Russian players were mainly based on sales of cheap, low quality steel demanded by and sold to Russian customers.

ZV-I: ...in terms of outside competitors, our main advantages are prices [...] I think in low value-added products we can compete. We have competitive advantage due to prices [...]. But for some typical products, I think mainly we compete through our prices, not through quality.

LV-I: we have the low costs. So in not very profitable products, the Russian companies are more competitive than Western. So we have the import from Ukraine and from China.

PV-I: ...in the Russian steel market these [the world's largest five steel] companies don't have sustainable competitive advantage towards Russian steel companies because of high costs of products with the exception of sales of wide heavy plates for large diameter pipes production as the Russian producers now have less experience to produce such high quality products.

At the same time, Company X managers did not appear to recognise that neither limited foci on low quality steel nor artificial protection of long established geographical claims would possibly guarantee survival of Russian players in the future. The ongoing period of transition was described as a factual challenge for companies X, M and N over the following five years or so. But the implications of certain dynamisms for the state of competition as a whole and also for the main players within the industry were not regarded as threatening. This was mainly due to the prevalence of existing profit margins at the time of the research.

To summarise, the previous sections have outlined the main foundations of the lens through which the Russian steel managers viewed and evaluated the state of competition. Under normal levels of competition, assessment of industry structure and application of basic frameworks such as, for example, five forces are part of external analysis. Conditions of manipulated competition, however, imply that the micro environment itself shifts towards the internal domain, as it is affected by individual business leaders. Consequently, it appears plausible that the Russian managers believed in a strategic power increase on their behalf. In simple terms, collected evidence suggested that the group of individuals above claimed to be able to control at least the near part of the external environment, the industry.

However, in oligopolistic structures with more than one substantial player, total control is highly unrealistic despite certain regional manipulations. The existence of foreign competitors could represent fundamental challenges for the Russian steel players. As the "troika" described above represented a seemingly

loose entity, any of the three players therein could choose to cease the high levels of collaboration at any time, hence minimising degrees of stability. Finally, both the continued existence of and dynamisms within the macro environment could have affected this fragile construct at any time.

Macro factors are naturally the most external factor on the continuum and therefore entirely beyond the control zone of individuals, individual companies or even industries (De Wit and Meyer, 2004). To ignore this important "law of nature" in strategy, appears to constitute, at least tentatively based on isolated data analysis, possibly a consequential step taken by the managers within the study.

Dynamisms and path dependencies in the Russian steel industry

As clarified in previous chapters - for logical reasons, in-depth macro environmental analyses should incorporate findings from assessment of past factors (Green *et al.*, 2008; Jeremy, 2002; Booth, 2003; Teece *et al.*, 1997). Therefore, it is of special importance to briefly identify and highlight path dependencies. Both context-specific past and more recent changes acted as indicators for future developments in the Russian steel sector.

From a strategic perspective, the Russian steel industry has experienced considerable changes over the years directly preceding the study. Perhaps most strikingly, an evolution away from state ownership, high levels of regulation, cyclical developments and relatively low growth. Although the establishment of some of these factors over time indirectly resulted from past incidents, the overall change phenomenon may neither be described as gradual nor sudden. This is because the state of the industry at the time of the study was characterised by complexity of internal *and* external changes and could not be attributed to single events such as political changes in post-communist Russia, for instance. Furthermore, any transition was ongoing and far from complete at that given point in time.

Consequently, only a selection of contributing factors and their dynamisms - guided by the managerial perspective and respective hierarchical order of relevance - is discussed in the following. This process culminates in future-based macro environmental analysis and determination of critical success factors.

Combined external factors

According to comments made by interviewees, a central trend was increase of demand for steel on worldwide markets since the year 2000; a development which has considerably accelerated in the years following 2004. This particular issue will be approached from two angles in order to avoid misunderstanding of cause and effect. Whilst any identification of direct or indirect implications is relatively straightforward and outlined below, underlying triggers are more complex. This is due to the nature of the industry and, more specifically, the existence of separate approaches to steel production as well as diverse market demands. Two managers responsible for strategic processes described this gradual evolution in the following way:

ZV-I: Maybe for ten years or so, the development of steel was decreased or stable but then it started to increase and owners of steel companies started to invest money in the plants and this tendency continues. I can say that the Russian steel industry started to grow geographically and also in terms of products. The range of products increased, not so big, but growing.

LV-I: Today, in the Russian industry three billion dollars are invested every year, in technical equipment.

On the other hand, at the time of the study relatively recent rises in steel demanded by Chinese business organisations as well as the observation of accelerated and anticipated growth of BRICET[27] economies were perhaps more related to the continued requirement to produce lower class steel grades. Interview data revealed evidence of context-related confusion with regard to perceived causal relationships and their path dependent impact. As one participant commented:

[27] Brazil, Russia, India, Eastern Europe, Turkey

NO-I: In China the consumption of metal increases world consumption [...] this huge consumption increases prices on the metal products.

VV-I: So right now we concentrate on lowest and, you know, moderate, this broad categorisation of steel. So we have high standard, moderate and low. You still need low grade steels because you need to make stairways and so on. But I think Chinese metallurgical companies are pushing us from this low steel; definitely because we can't compare and compete with them in terms of costs. They are pushing and if we don't move upwards to higher grades of steel, we'll be pushed from moderate steel, where we are situated right now.

A clear connection between increasing demand for low grade steel products in the Far East and general price developments in other world regions is debatable. Nevertheless, supply growth naturally follows demand and, with time lags, may have contributed to higher raw material and transportation costs in Russia, for example. For the reasons aforementioned it is necessary to distinguish between three categories - general increases in overall demand for steel products, low quality, and high quality steel grades. The emergence of increased demands for the latter attribute over recent years was highlighted as a newly identified yet major feature of the Russian industry - which did not aim to target this particular customer market in the years preceding the study.

Yet, managers regarded the move into this direction as triggered by changing customer preferences and macro environmental trends. It is important to note that neither did it represent the gradual fade out or end of production of low grades steel nor act as the outcome of voluntary decisions made by their peers or bosses. On the contrary, *external* pressures to build up competences in high quality steel as well as the continued requirement to serve existing customer target markets in less sophisticated product ranges were described:

SN-I: I think that demand for our products has increased. So quality is in the first place now but it might be for example that five years later the volumes of supply are in the first place.

ZV-I: Obviously, demands of our customers increased because the entire economy is growing [...] by customer demands I mean firstly quality [...] if you look at the dynamics of changes in customer demands, quality is constantly growing, and prices are becoming less important. Another point is service; it's also increasing, the service demands and the demands of timing, just-in-time, sales, and more integration.

Thus, statements made by managers and participants in this study revealed at least four distinct stages of development within the Russian steel industry over the years prior to and during the conduct of the study:

- **Phase I** (pre 1990) state regulation and low levels of domestic or global competition
- **Phase II** (1990-1999) decreasing demand for steel products/idiosyncratic local and unstable political factors
- **Phase III** (2000-2004) technological innovations, push towards quality steel
- **Phase IV** (2005-2007) increasing costs, consolidation, fundraising activities

Phase III and IV in particular represented the relevant main focus of attention for analysis within this section. Anticipation of future trends, namely falling into phase V, forms part of the subsequent identification of dynamic capabilities building processes. Still, the past developments continued to affect the industry under investigation to varying degrees.

Macro environmental analysis

ZV-I, for instance, highlighted the continued importance of political factors in the Russian steel industry, despite substantial changes and a period of transition.

ZV-I: In the past, the political situation was very unstable and it had a great influence on everything, on the economy and the steel industry. But in the last eight years it became stable and even growing and I think political factors and influences became better than in previous years [...] in the past it was considered that the steel industry is a weak industry and should die but now situation has changed globally and particularly in Russia. The economical factors are positive [...] there were political factors. In general, I could say that political factors are neutral. Neutral or positive. In the past there were some negative factors. Most of the steel producers in Russia were mainly exporters in the past and all exporters had to sell five percent of the revenue from our customers from dollars to roubles. It was quite a political factor which in that time created some problems.

No consensus existed among the Russian managers in relation to perceived status and value of future-related external analysis within daily work routines,

although the strategic importance of future forecasts was regarded relatively high *in general.*

EV-I: Strategic forecast is very important for our company because it is possible to react more actively to changes.

KN-I: If the management can rapidly make decisions and can predict what will happen; maybe the main aim of our department is to predict and to make forecasts of what will be tomorrow. And so the top management will be successful in making decisions at the right time. So that's the first, the managers.

Transferred to the Russian steel context and thus representing the specific angles of involved managers, a somewhat dissimilar picture emerged. A clear distinction was made between the world steel industry, individual Western countries involved in steel and the Russian context. Accordingly, the strategic importance of processes associated with anticipation of future trends in the macro environment as well as establishment of appropriate responses was considered low. Evidence suggested that this managerial evaluation was mainly based on past experiences and certain degrees of complacency due to positive financial indicators at the time of the study. Regardless of this aspect and the role of path dependencies (Rosenberg, 1994), it may be problematic to de-value the basic need to conduct future forecasts through exclusive reference to assessments of *past* external factors.

Dynamisms and increasing rates of change result in the requirement to continuously acknowledge future risks deriving from possible major changes. Many examples cited within the previous literature survey (see Chapter Two, for example) reveal that the former could materialise unexpectedly and within relatively limited periods of time. In terms of an analogy, weather conditions off shore may suddenly worsen at any time and thus present unanticipated risks for even the largest of ocean liners. Hence, awareness of these risks does not represent a matter of choice but potentially a matter of survival. This view does not imply, however, that it is generally dependent on such types of forecast but their complete absence may nevertheless have negative effects for capability building.

One of the managers commented:

LV-I: In the Western economies, of course, we have to take into account the far environment, the speed of changes. Actually, in the steel business we try to implement the high technology in terms of software, in terms of PC systems, in terms of quality management in order to improve some automatics, more precisely, more powerful. We use energy presumption system, you know, in order to slow down it. Of course we are, look at this: I think it's not so demanding. Especially for Russia [...] but not for very long. I think that it takes some years and we also, if we draw a picture in terms of time and the grade of development of the steel business, in terms of business, in terms of efficiency, in terms of knowledge, in terms of experience [...] of course it is very difficult because the nature of people is conservative. Sometimes people don't believe, don't understand. It's clear; it's very difficult to believe that we will have some problems in the future, if today we have very good financial results.

As briefly indicated above, collected data suggested only marginal evidence for willingness of managers and senior managers to identify established processes incorporating macro environmental analysis in the context of daily work routines. Still, the earlier presented literature based theoretical framework for dynamic capabilities building highlighted such action as perhaps the most important pre-condition for practical application of DC (Tallman, 2003). The question arises whether this lack of explicitness is due to factors related to causal ambiguity, the role of intuitive decision making of participants as discussed earlier or context-specific attributes of the Russian steel industry. The points raised above are reflected in the selected comments below:

SH-I: The future of this industry, let's say for ten years is okay.

NO-I: We have good environment and good potential in the environment.

Yet, such claims may be seen as somehow contradictory to both general industry trends at the time of the study (2005-2008) and respective assessments regarding the future of the *competitive* environment. Naturally, micro and macro environmental factors are interlinked (Aaker, 1984). In most instances, significant changes in industries are unlikely to be organic in nature. In other words, they do not represent the outcome from actions taken by competing business organisations or players. Macro environmental trends are ideally identified before they have any major impact on aspects of industries and affiliated companies. Henceforth, political, economic, social, technological changes or differently categorised sub themes can change the face of the steel industry over time. Not vice versa.

In such instances, efforts taken to control the industry through monopoly-like positions are likely to represent zero sum games with regard to value creation. Any observation of current industry characteristics is therefore in some way related to macro environmental trends of the past (Faulkner and Campbell, 2003). Managers observed, described and categorised major changes in the industry structure. But they subsequently failed to establish logical connection with future-based macro environmental analysis, this resulted in wrongly labelling certain external issues as industry trends.

It is important to note that the above mentioned assumptions relate to the omissions in routines which are clearly part of the realities under investigation. Their provisionally implied deficiencies, however, thus far both exist on and derive from the data level only. They require additional validation through critical evaluation based on direct comparison with relevant strategy literature in subsequent chapters. This is in line with the principles of exemplary case study research which needs to be open towards any findings, as previously outlined. These factors should hence not be regarded as definitive with regard to their causally connected consequential implications for dynamic capabilities building in the steel industry.

Evidence suggested a number of potential misinterpretations from the managerial perspective. An example for a "false" industry trend is the managerial description of consolidation of both the world and Russian steel industry; an ongoing phenomenon at the time of the study and major subject related focus thereof. Despite the issues' clear identification by participants of the study, it was fundamentally caused by macro environmental factors - the effect was increased through acquisition activities of major players in the steel industry (Stewart, 2007). Therefore, it can not be described as an industry trend but as an externally triggered occurrence of a cyclical phenomenon. Nevertheless it was affecting all players in the industry but not a result of their own active initiatives.

PV-I: The main driver of macro environmental changes on the steel industry is the world consolidation process. Analysts named the period within 2000-2006 regional and continental consolidation phase which followed the national consolidation phase (1970-2000). In 2006 two major companies Mittal Steel and Arcelor merged giving start to global consolidation phase [...] based on the historic trend of industry consolidation [...] by the year of 2020 top five crude steel producers will produce 40 per cent of world steel production. In such conditions as steel companies will be international political impact on them will decrease. Economic impact of consolidation process on the steel industry is characterised by fact that enlarged companies have economies of scale, scope, and market power, in comparison with smaller companies. At present in the developed countries as Europe and the USA the eco standards for steel producers are become stronger [...] Future five years time changes in the Russian steel industry also can be caused by consolidation process. Analysts consider that alliances between large Russian companies could radically change Russia's positioning at the world market for the better. However, Russian companies' mergers are evaluated with little probability because of high ambitions of their owners and lack of synergies from mergers. Therefore, perhaps, the Russian companies will enlarge via M&A transaction with foreign steel companies.

SH-I: A recent tendency is that globalisation and mergers and acquisitions are very popular.

SV-I: Acquisitions should definitely be happening because if you look at the suppliers and the customers of the steel industry, they all consolidate. I mean, the biggest industry which consumes steel is the automotive industry. They have maybe five big companies left in the world producing the majority of automotive, cars, and on the supply side you have maybe two or three big raw material, iron ore companies left. And at the same time you probably have hundreds of steel companies in the world so just because of that the steel industry needs to consolidate in order to have enough leverage and influence on the prices of raw materials. Yes, that's probably the only way to increase competitiveness for the steel industry relative to other industries.

VV-I: [...] consolidation of all Russian metallurgical assets under one company. "Russian Steel something" [...] Russian steel companies will be merged with somebody or acquired so they will integrate in the world steel industry [...] I think at the moment the eagerness to merge and acquire goes down a little bit because steel assets cost too much at the moment. But I can see that this is a cyclic process. And during the next cycle, from my point of view, we will merge in some sort of "Russian Steel" or merge with somebody else or get acquired. Because the experience of the whole industry, air travel, car industry, even polymer industry is showing that this whole process will result in five, maybe ten global players [...] to survive separately will be impossible.

With regard to "real" macro environmental factors deriving from interview data, environmental and technological issues appeared linked due to the nature of steel production in general and respective levels of pollution in particular:

PV-I: Steel producers give more consideration to investments in equipment for environmental protection. Some companies close down its coking plants because they pollute the atmosphere very much [...] steel industry technologies have been used for many years practically unchanged. An equipment of steel producing plants is capital-intensive and it is in use for long time before renovation. Therefore, new technological processes as, for instance, iron making processes without coke use (Hismelt, AusIron, etc.) are not widely represented and can't compete successful against blast furnaces. In the future, perhaps, nanotechnologies will impact on steel making technologies to produce steel grades having enhanced specified properties.

VV-I: In the next five years, from my point of view, the modernisation process will continue because steel, despite of great sums involved, there are lots of errors which need to be replaced and revamped and I think Russian major metallurgical companies will move from just revamping of equipment to Greenfield. Because you can't revamp old furnaces: all Russian plants have long histories. They originate from first or second part of the last century so I think there is a lot of pressure.

For a number of reasons, ongoing consolidation both within and from the Russian steel industry had certain implications for the latter's status as a separate business environment.

Most importantly, decreasing dissimilarities between the world steel industry and specific steel production in the Russian Federation as mentioned above. In order to fully grasp the impact of such transitions triggered by consolidation, it is important to compare existing differences first: one of the major aspects is the issue of ownership. Its importance is amplified by implications for strategic decision making, the entire process of strategising and therefore also the DCV. According to managers, ownership of steel businesses in Russia was often characterised by one investor. His role was, contrary to most Western companies, not only characterised by provision of funds, but determination of both strategic formulation and implementation more than pure delegation of associated tasks to elected board members and their staff.

VV-I: [...] some heritage of the former Soviet Union. It's erased step by step but still, that's not where we are the champions. However, also, if we think about the old metallurgical industry, only Russian and Indian companies are owned by only one exec person. European, Brazilian and of course companies from the United States of America are owned by a number of shareholders and that's why managers have to justify their decisions and therefore decisions are often only for shareholders. In Russia, managers are just doing their job and following decisions of one person.

Indirectly, participants established a hierarchy of macro environmental factors through their acknowledgment that political influence continued to be very high.

VV-I: From my point of view, we still have a big impact of the state upon the industry. I think that's the main difference.

CV-I: To compare the Russian and the world industry: for me I think that in the Russian metallurgical industry, the majority has Soviet Union policies or had Soviet Union policies. And there was very slow development of the companies. Only now there are possibilities to take part in world markets of the steel industry. And also there were different standards of steel, a different quality was for example preferred by domestic markets, and actually all Russian companies have been working only for domestic markets.

Critical success factors from the managerial perspective

The combined appearance of these two factors, single ownership and the highlighted role of political factors in certain spheres, probably barred external investors in the recent past. Simultaneously, both planned and implemented geographical expansion of domestic steel organisations acted as testimony of the possible expiration of these remaining strategic characteristics of the Russian industry. Hence, M&A were unlikely to be triggered by external pressures for competitive survival but by certain advantages associated with prevalence of unique situations.

At the same time it is important to note that the earlier discussed demand for quality steel products continued to result in increasingly homogenous market structures on a global scale, thus leading to further assimilation of Russian and world steel industry and indirectly diminishing this particular effect. Furthermore, geographical expansion through a number of acquisitions and single ownership are somewhat irreconcilable because their co-existence over the longer term is questionable. This is mainly because such action naturally requires extensive fundraising activities. An example for the observed paradigm change in business behaviour of Russian steel tycoons was the announcement of Company X to proceed with an Initial Public Offering at the London Stock Exchange in late 2006.

These events could be described as further evidence of implications of emerging and imminent changes - yet not as the causing factors themselves but still with wide reaching implications for both the industry and attached managers. Any externally triggered changes of the Russian steel industry would affect the "aggregate state" as well as identification and analysis of critical success factors (CSF) and threshold resources. For this reason, the initial assessment of CSF is not final, based on the original situation at the time of the study only and exclusively derived from the managerial perspective. On the other hand, subsequent analysis sections incorporate ongoing dynamisms and their impact on future related threshold resources and capabilities more explicitly.

Interestingly, neither the described distinction between past and future features of the industry following the most recent and ongoing transition period nor the impact of such changes were directly reflected in the accounts given by interview participants. A clear focus on the *present* day realities at the time of the study became apparent. Regardless of the appropriateness of such limited foci, especially in the light of competitive survival (Helfat *et al.*, 2007), it is necessary to investigate managerial assessments in depth in order to understand how the above described factors had an impact on strategic thinking.

However, as these prevailing conditions appeared to be phasing out at the time of the study, their highlighted emergence from narratives contributed to path dependent analysis only - mainly because of the absence of logical connections with future related macro analysis. Nonetheless, based on collected data, it makes sense to assume that formerly successful thought patterns and established structures and processes among decision makers would continue to influence both strategy formulation and implementation.

In past conditions of single ownership, the role of the Chief Executive Officer for business organisations within the specific industry context should not be underestimated. One of the managers in the strategic planning department commented:

VV-I: I think critical for survival of Russian companies is first of all the search for the right individuals at the top of the companies. We can see right now that lots of persons who are in high positions in companies are just sitting in their place and not going to move and not going to change. They are just satisfied with money and everyday they stay in the same position. It's a corrupt system. I think change in culture is inevitable in Russia. That's because we came to the end of our former heritage, the Soviet Union. In terms of reliability and in terms of competitiveness, because we understand that these are old business processes. The old approach to business processes costs us too much. And we cannot cover it with low salaries and low raw material prices because raw material prices are growing, salaries are growing so we begin to understand that we need to change. Lots of stuff is written in books but we need real changes. Because often something is done by some people but there is no result.

Additionally, as mentioned above, the unique characteristics of the environment, mainly political constraints and relatively unusual ownership rituals - perhaps somewhat resonating the dubious rise of oligarchs in the 1990s

of the last century - resulted in relatively limited activities of foreign companies in the steel sector of the Russian Federation. This is somewhat contrary to the active and constant flows of investment into Europe and the United States of America from the former world region, mainly through acquisitions. Yet, pursuit of such methods of external growth came not without practical difficulties. Participants attempted to explain this through an emphasis on the wider context:

CV-I: For me, I think that there actually is a problem with the world market now for Russia: Maybe it's not such a big problem but there is. I don't know why but European countries, European players are afraid of Russia. Maybe it's because of our culture, maybe because of our mentality. But nobody wants to attract Russian rich people who are just having their private big companies, attract them to the world markets, to merge with them through acquisitions and so on. Actually I don't know why. Maybe this is just a political question because, you know, with the situation in the world which is not so soft. So everybody just wants to avoid influence. I think so. Because even now there is some bad information, maybe, that there is a new stage of cold war now on the planet. I think it's not such a good thing for the Russian market because Russia is one of the potential players in this war and I think everybody is just afraid of nuclear weapons and so on and of course nobody wants to make long term contracts with our country, just to avoid influence.

VV-I: You know there are quite a few changes in The Russian Federation. We feel that, you know maybe not just common people but also in the metallurgical industry, they are afraid of Russians. They do not treat Russian companies as neighbours and as equal partners. Okay, if you sell low grade steel and we can buy some steel and produce some very high margins, okay, then we do business with you. But if you came as a partner, that's the problem. You're treated like a person from the third world. That's an issue, I think in steel that's still an issue.

KN-I: Okay, Russia in the 90s. There was a big gap between us and the industrial world. So what did we need? We needed time. We didn't have it. So how can we get this time? Just developing or building were improper, so mergers and acquisitions are the proper way, how I mentioned, way for survival. And the second is to be effective in the industrial world. You should meet the requirements of the world's customers. So again you need to improve your business, improve your equipment, and improve your style to give your customers better steel and better products. So it's [M&A] quite important.

Despite the negative issues mentioned above, growth through successful M&A activities was regarded as the only way forward. For this reason, it can be summarised that, in the wider context of a general industry trend towards consolidation (Stewart, 2007) mainly resulting from macro environmental changes, this method was centrally incorporated into strategic decisions and action plans of Russian players. Still, it remains unclear whether firm-specific decisions to engage in acquisitions were consciously taken by respective managers in the context of strategic planning, or if they simply represented the acknowledgment of unfavourable future developments in the industry as the only promising option available.

As stated earlier, the importance of macro environmental analysis was rated very low within daily work routines of individual managers, for example in the strategic planning departments; therefore the latter explanation appears relatively unlikely from the external observers' point of view.

It seems that active strategic decisions were made but not primarily based on external factors or changes. This particular observation reinforced the requirement to include internal analysis in Chapter Eight, both to clarify these questions and to shed a more balanced light on the main unit of analysis.

Special emphasis hereby lies on the clear focus on strategy processes orchestrated by managerial participants. The comment made by ZV-I below indicates the position of M&A activities at the time of the study. Interestingly, a connection was drawn between the steel industry and the complex relationships with both suppliers and customers. The quote indicated a possible additional motive for embarkation on acquisitions: industry factors such as supplier and buyers' power.

Whereas acquisition of suppliers represented an area where steel players focussed on acquisition deals mainly due to rising raw material costs rather than as responses to direct threats from hostile take over attempts, the emphasis on the latter was mainly affected by learning from experiences of the automotive industry: it was more powerful than before due to the relatively recent completion of a consolidation cycle a few years earlier.

ZV-I: We should speak about this industry as a whole and consider that the critical success factors are size of companies; the trends of globalisation are very influencing in this case, and in terms of security against acquisitions, we should be bigger. In terms of trade negotiations with our customers and with our suppliers, we should be bigger. Because [consolidation] in our suppliers' industries and consolidation in our customers' industries are higher than in the steel industry. In comparison, consolidation in the steel industry is about 20% of three biggest companies and in iron ore it's about 70% of the three biggest companies. For example, automotive industry it is also 30% of three biggest companies. Steel industry is "between" two highly consolidated industries. So, force of customer and supplier is big.

At the same time - and despite the comments above, it is clear that the reasons for increased M&A activities were not fully communicated. An example for a

certain degree of ambiguity and confusion are the following comments made by managers within the central strategic planning department of Company X.

KN-I: You know, that costs of the products in Russia are not stable but dynamic in growth; somebody may be thinking that by acquisitions or by some other ways we can reduce it, I don't know the details about our plants. But I don't believe that if we do this it will be stopped for a long time, so the costs will increase. For me it's obvious. Of course the people, the qualified staff can help when something in the environment changes. Not good for us. Because when you make decisions, it's not enough [...].

SN-I: Resources. This is the first [CSF]. The next one is merger and the third our internal processes such as cost reduction and horizontal and vertical integration [...] acquisitions of raw material suppliers.

VV-I: I think we need demand for our products. I think we need to look maybe ahead to see what the markets will require, to develop various steel grades and so on. That's very clear because in steel we do not produce such high standards of auto steel as in Europe. We will never have European class Russian cars; never have world class Russian steel. But I think right now that is a process that, I think, five or six global auto makers are constructing at the moment their Greenfield assembling units in Russia. But from my point of view, they will continue to assemble for a couple of years and then after that they will give us auto steel of highest grades, we will pay US margins as Arcelor in Europe they will give us here in Russia. So we have to be prepared. And this concerns not only auto markets but construction as well and so on, pipes, there is lots of steel required in the pipes industry. So, to deal with technology is important.

Thus, participants themselves identified three main challenges critical for competitive survival in the short to middle term future measured from the point of completion of data collection stages for this research in the year 2007:

- Public ownership somehow limiting strategic leadership by executive owners
- Technological product developments and cost reductions
- Continued growth through M&A

As indicated above, the direct analytical power of this particular evaluation by managers should be regarded with caution because evidence suggests that it was almost exclusively based on review of past conditions and performances. However, the criticality towards such statements is based on the literature survey of Part 1. It may therefore not be viewed as fully legitimised until later stages within the present study. Even so, and with regard to the overall research questions for this study, it is important to fully grasp the managerial lens on this issue.

In this specific context, perhaps the most striking phenomenon is the fact that participants appeared to make no distinction between past and future trends at all, as the following example demonstrates: when specifically asked about the *past* of the industry, a manager commented the following:

VV-I: [...] in the last five years, Russian companies went abroad and bought subsidiaries in foreign countries, in Canada, the United States, Europe, as well as in former Soviet Union countries. So this really happened in the last five years. Second important point, all major Russian companies made initial public offerings, went through initial public offering processes. So, as I said before, this did not change the structure of ownership greatly, however, at the moment all of them are listed in Russian or even London Stock Exchange markets, at fair prices that are defined by the markets. Third point, I think in the last five years all Russian companies went through processes of modernisation. They invested huge money in equipment and developed downstream processes. So before none of Russian metallurgical companies had colour-coated mills. So right now everybody has colour-coated mines and I think not just one.

On the other hand, when questioned about the *future* of the external environment, the finance director of Company X, responsible for International M&A operations provided the following comment - to a large degree containing the same key factors as both earlier analysed statements and the path dependent evaluation by VV-I above:

SV-I: Cost is definitely a big driver for any steel company. Steel is a commodity. And although you can do some niche products, but if you look at the bigger picture, pretty much any company is concerned about having the lowest costs of production. Raw materials represent probably 60% to 70% of the costs of any steel company. Big drivers of competitiveness for any company are raw material costs. Where you buy your raw materials, how far you are located from the sources of raw materials. Do you have long term contracts? Do you acquire some sort of stake in your raw material supplier in order to be competitive? And then, of course, there is operational improvement which you actually do in the process of production. So basically you are inventing new production processes which mean you can produce steel much cheaper than anybody else. You can be successful this way. And as you probably know, there are a lot of other mill technology processes in the steel industry, so if one of them proves to be successful, then we can probably become competitive by developing one of these technologies. Some companies invest heavily in new production processes which would eliminate hot furnaces as production sites; potentially companies will do it to be more competitive.

The following aspects are emphasised: the assumption that the steel industry was stable in nature, hence erasing differences between past and future to a large extent. In stable industries with little or no changes over time, the importance of future forecasts is reduced because it is harder to practically identify and measure obvious transitions (Barney, 1991). Interviewees' reluctance to identify ongoing dynamisms may have resulted in limited abilities to regard external developments as both linear and progressive - with

accelerating tendencies, accumulative effects deriving from certain changes and wide reaching implications for the industry and all players therein.

On the other hand, given both the visibility of major changes in the industry as well as narratives which testify *explicit* acknowledgment of the former, none of the scenarios described above appear neither obvious nor plausible. Rather, the only reason for the managerial lens and evaluation and struggle to identify relatively dissimilar parameters for the steel industry is described below.

Strategic managers possibly underestimated the importance of conduct and application of continuous macro environmental analysis. An explanation for this observation could be the fact that its practical purpose appears theoretically very limited or even nullified once the parameters of analysis are drawn from a strategically irrelevant past. Still, due to the absence of existing applications of the DCV to the steel industry to date, this issue requires separate attention in the course of the presented thesis.

Moreover, specific comments made by participants did not rule out, for instance, the existence of more causal ambiguous or even intuition based future forecasts. In fact, participants explicitly mentioned the example of the North American steel industry in order to demonstrate a possible future pathway for the Russian counterpart. In particular in the M&A context, the managerial perspective revealed established processes to learn from this geographically limited environment through regular knowledge transfer between senior executives, for example.

The described scanning of similar industries abroad may justify why identification of consolidation efforts was mentioned as a major trend despite the earlier discussed almost complete absence of regular procedures and processes for respective strategic forecasts. In other words, a certain degree of *indirect* macro environmental analysis and future forecast through "imitation" took place, triggered and facilitated by constant observation of more mature regions of the world steel industry.

Although potentially beneficial in certain areas, nonetheless full reliance on such "coincidental analysis" provides a number of risks. This is mainly because specific industry evolution abroad may not automatically repeat itself a few years later in the Russian Federation - due to potentially dissimilar external parameters and even less so in accelerating conditions of change. In addition, it must be added that the learning processes from the US industry were only visible with regard to single, isolated elements of the former's development: in the context of M&A, for instance.

CHAPTER 7 M&A IN THE STEEL CONTEXT

7.1 Introduction

In line with the overall research questions, the role of M&A within dynamic capability building is explored through the managerial perspective. The literature review has clearly outlined the status quo of theoretical knowledge regarding mergers and acquisitions from a strategic perspective. It became evident that a number of issues remain potentially difficult and scholarly research in this narrow area is characterised by both different angles of approach towards the issue but also restricted and somehow divided by terminology problems and blurry definitions. Furthermore, similarly to the wider context of the DCV, it could be observed that a tendency exists among research communities to generalise with regard to M&A, despite potentially context-dependent and industry-specific nature of the latter.

In this chapter, insights from collected data are presented in order to provide a counterbalance to the earlier introduced purely theoretical perspective. The analysis of the managerial perspective on this matter is of special importance because all interview participants were directly involved with M&A within their business organisations but simultaneously operating within an industry entering a period of increased consolidation activities at the time of the study - as outlined above. Managers put special emphasis on the distinction between pre and post-acquisition periods and the structure of this chapter henceforth follows this rationale in *broad* terms.

In line with the overall research questions, M&A are *exclusively* approached with one major objective only: to explore the role they could potentially play within complex processes associated with dynamic capabilities building. Acknowledgment of certain general debates regarding this method of external growth is nevertheless important in order to avoid both over rating and reliance on limited set of firm-specific actions available to senior managers within a wider context of dynamic environmental changes.

It is necessary to revisit the basic yet somehow paradoxical insight of the cyclical nature of mergers and acquisitions but also their general nature results in them being more the direct result of macro environmental phenomena rather than internal strategic options or the most visible indicators of industry dynamisms - from the adopted DCV lens. The managerial self reflection on their own degrees of control on M&A is therefore of particular interest for the research.

7.2 M&A and Complexity in the Pre-Acquisition Period

M&A continue to represent an unresolved, highly controversial issue within the subject discipline at the time of the study (Cartwright and Schoenberg, 2006). Despite certain generally accepted findings, a number of critical issues remained unresolved: these were mainly related to the issue of failure rates - generally considered as extremely high (Porter, 1985; Ravenscraft and Scherer, 1987; Kay, 1993; Selden and Covlin, 2003). It was therefore not only important to establish the managerial lens on failure or success, but also respective definitions thereof. Overall, participants displayed a fairly critical view on purpose, process and practical implementations of mergers and acquisitions and did not question the complexities associated with the phenomenon.

Data collected for this study indicated the following major reasons for failure and critical issues within the pre-acquisition paradigm:

- Lack of overall strategies
- Inappropriate predictions of synergies
- Absence of appropriate selection and screening processes for target companies
- Failure to establish links between target selection and internal analysis
- Evaluation of macro environmental trends affecting the choice of industries
- Overly optimistic financial expectations

As interviewees observed concerning the pre-acquisition period:

PV-I: In the pre-deal planning period, mistakes often occur because of lack of compelling strategy or overly optimistic expectations of synergies.

GV-I: In my opinion, the reason why mergers and acquisitions fail is usually due to wrong target companies. The selection is usually based on wrong forecast or wrong assumptions which they are usually not able to achieve. And also, on the other hand, in the last years steel industry, in particular, is not a good thing for mergers and acquisitions because steel companies are on peak and prices for equity are very high. So to justify the position we should have some greater synergies than usually.

EV-I: The main causes of failure, I suppose, is that some enterprises acquire in the wrong industry. And I suppose that it's cause of failure. As I said before, we have very strong strategic department.

The statements above potentially represent testimony of a central contradiction within the managerial perceptions on the status of macro environmental analysis. Within the industry setting under investigation and as clarified above, periods of increased M&A activities are triggered by certain cyclical developments which, in turn, are likely to be dependent on macro environmental changes. This is because the origins of consolidation are naturally external due to both scope and scale of such transition phases. The latter automatically involve large capital sums, high numbers of active and passive business organisations, industry sectors and individual practitioners (Rovit *et al.*, 2004).

One may argue that despite the clear alterations and fundamental changes they constitute for many aspects of business life, this is technically not a two way process of influence. Companies within certain industries are actively carrying out mergers and acquisitions. But they are not responsible for the overall consolidation period itself. Nevertheless, this impression can emerge due to the visibility and high profile of such activities. In other words, any respective identified cycles represent direct, yet somewhat time lagged, consequences from developments *within* rather than elements *of* the far environment.

Preliminary, it may be observed that the ongoing main M&A consolidation phase at the time of the study was built around related, horizontal take over attempts, regardless of individual vertical integration of raw material suppliers in single cases.

In other words, the described link between macro environmental analysis within the strategic planning departments of the Russian steel industry and the pre-M&A process appeared somewhat flawed in nature. Comments made above at least imply that individual managers would regularly conduct future-based external analysis in order to identify suitable target objects within and outside of the steel sector. Yet, they admitted that this was not the case.

The question arises whether wrong industry selection can fully explain failure of M&A - based on strategic mistakes made within the *pre*-acquisition period (Gupta and Roos, 2001). It is therefore very important to separate different types of possible options for strategic forecasts in the M&A planning process.

- Internal predictions of expected synergy effects
- Moves of other competitors within the industry setting
- Macro environmental analysis

However, data equally revealed that the last point above did not play a significant role for managers involved with acquisitions. For logical reasons and the purpose of this study, it is necessary to further explore and acknowledge possible connections in more detail. The reasons for these observations root from basic DCV assumptions regarding the role of external changes. As the main focus of the investigation is dynamic capability building processes in the steel industry, this issue represents a central point of enquiry and not a side avenue from the original research questions.

Simultaneously, it may exemplify a major barrier to dynamic capability building from the managerial perspective and is discussed in more detail at a later stage. Nevertheless, analytical processes associated with identification of possible stumbling blocks are important prerequisites for insights on this topic and henceforth particularly emphasised in the course of this discussion.

7.3 M&A Identification of Suitable Targets and Screening Processes

A manager provided the following evaluation of pre-acquisition procedures and their specific roles:

SH-I: I suppose, before you acquire something, you need to think very hard. It could be, maybe, two variants from my point of view: you acquired something in order to prolong your network of companies, in order to get synergies, et cetera et cetera; in order to expand your current activities. Get more efficiency. By, I don't know, selling slabs to the US and producing from these slabs very high quality cold-roll products for the auto [mobile]. It's one thing. But it could be that you are not claiming synergies or any inter-relations between your current business and your acquisitions. In this case you need to think about the price for this separate business. You need to understand whether this price you are going to pay will be returned during, let's say, several years. And in this case, depending on what...in the first case you need to be a hundred percent sure that there will be synergies and of course in this case you also need to calculate money, payment for this asset. In the second one, okay, no synergy but you need to focus on the, let's say, money you are paying for this asset.

Relatively independent points of view thus emerged. Approach and conduct of acquisitions completely detached from any planned, attempted or realised pursuit of synergies and technically treated as "separate businesses". In this case, the focus of attention throughout the pre-acquisition period is naturally shifted towards financial evaluation of anticipated costs and return on investment. Nevertheless, although allegedly unrelated with resource combinations, the raison d'être for this type of M&A from the managerial perspective may nevertheless be found within and be based on certain strategic considerations.

Due to the explicit description of two common approaches made by SH-I above, it may be necessary to investigate why M&A took place. In other words, why was external growth through acquisitions selected if no potential for resource combinations (April, 2002) existed from the managerial point of view? Data clearly revealed that in this category of acquisitions in the steel industry, the managerial evaluation of success was exclusively based on financial key indicators (Mayer-Sommer *et al.*, 2006; Coffey *et al.*, 2002). However, these are generally problematic in causal terms and can only be analysed *retrospectively* after considerable periods of time. It is therefore important to recognise that, in fact, no effective pre-merger evaluation or screening of target companies took

place in such cases. Predicted monetary returns did not consider external future-based analysis.

Furthermore, the reasons for practical action of this type may relate back to the earlier included external analysis of the Russian steel sector. In this narrow environment, growth has been described as a major CSF in the near future with anticipated further consolidation. In this respect, the latter shared particular similarities with "self fulfilling prophecies" as major players pursued acquisitions mainly to improve both prospects for competitive survival and their own future hierarchical position of power within the earlier described troika of "co-operating" partners.

This concealed battle, however, accelerated both the pace of consolidation and simultaneously decreased the attractiveness of the industry for the three main players due to harder general conditions. Also, it needs to be emphasised that this effect only applied to M&A activities of Russian players, was time restricted and furthermore unable to explain why the period of consolidation represented a worldwide trend at the time of the study - macro environmentally triggered and *not*, as clarified above, initiated by individual companies.

Still, the above highlighted statements also reveal that the second type of M&A had an explicit focus on anticipation or prediction of synergy effects. Although this issue is discussed in more detail in the remainder of this chapter, it is perhaps of preliminary importance that, in the wider strategic context of M&A, the concept of synergy is characterised by contradictions, ongoing debates and wide gaps in the literature (Tallman, 2003; Andrade *et al.*, 2001). From an analytical angle, it needs to be clarified whether synergies fall into the pre- or the post-acquisition periods - or a combination of both. In fact, although the managerial comments are ambiguous regarding this aspect, the latter possibility appears to be the most logical from a DCV perspective.

In dynamic environments of accelerating rates of change, as in the case of the Russian steel industry, resource combinations need to be judged on their ability to increase competitive survival due to the earlier explained links with threshold

capabilities. Based on these particular success criteria, any attempts to strategically combine resources through M&A, both initiated, monitored, adjusted from the senior level perspective "boardroom control panel" can therefore not be static in nature. They are possibly characterised by respective constant, dynamic action. In this scenario, the complexity could potentially be minimised, although not eliminated, if target selection included identification of resource bases and their *explicit* role in comparison with the future related changes of the macro environment.

Following this approach may facilitate attempts to achieve synergy effects in the post-acquisition period and thus bears certain logic because any synergy would be characterised by time lags and difficult to be causally attributed to specific strategic actions or single events. Additionally, the number of potentially influential variables represents a fixed barrier to retrospective analysis.

Therefore, this chapter needs to be extended to include further important aspects:

- Identification of existing screening processes pre-acquisition and evaluation of their effectiveness with regard to resource combinations
- It is necessary to analyse strategic options in the post-acquisition period; mainly in the wider context of possible achievement of synergy.

This structural order may culminate in development of definitions for successful mergers and acquisitions activities - although it should not somewhat prematurely imply any relevance of M&A for dynamic capabilities building. It is naturally restricted to the contextual steel sector under investigation. But it may nevertheless assist development of a basis for general re-evaluation of the perhaps overused term 'synergy' based on insights from this specific research and within the boundaries of strategic approaches towards acquisitions.

KN-I: Why do they fail? I think we need to look at cases. For example Corus, yes? When the company acquired another, I don't know exactly the reasons but maybe they didn't choose the right product and segments of the market. I believe that there were big opportunities. What happened? I don't know but we need to look at profit/loss of the company. They tried to change their own company and to become more effectively in the last years. I think that they went just the wrong way. If we look at Mittal, it's very different from this: they tried it on one, two, three companies, they developed the stages in some kind of plan, they came from one company and went to another company and used this programme (plan), you see. So it depends on the management who become the owners.

The comment made by KN-I above, himself holding the position of strategic manager in the strategic planning department of Company X at the time of the study, reinforces the points included earlier about indirect acknowledgment of external trends through imitation. It becomes clear that Russian steel organisations were actively observing M&A activities of players within the world steel industry. Furthermore, the account once again confirmed potential flaws in managerial perception which may only be explicable due to the overall misunderstanding of external analysis: success of Mittal, for instance, was associated with their M&A experience and respective standardised, tested strategic approaches with regard to pre-merger selection. Nonetheless, ambiguity prevailed with regard to the details of these procedures, testimony of the limited information available to managerial levels.

The identified regular and close co-operation with Russian main competitors was naturally restricted to the geographic steel industry of the Russian Federation and thus not applicable to outside competitors such as Mittal or Arcelor. Furthermore it was a somewhat diminishing major past success factor in conditions of increasingly blurry boundaries between the world and Russian steel industries at the time of the study. The transferability of established procedures of Mittal on future acquisitions of other organisations, both within the world and the Russian context, must be questioned, although this specific example represented a recurring theme among participating managers in the context of their observations of outside industries.

This particular account is supported by the following comments made by participants of the study:

ZV-I: If we compare with, for example, Mittal steel, it is difficult to say if they are successful mergers or not, but I know that they have some methods and models for acquisitions. They put their managers into the acquired companies and they know exactly what to do. We can discuss the methods and tools but I think they are more successful in acquisitions.

GV-I: I think the best way is to become a big player like Arcelor/Mittal [...]

SV-I: Now you have Mittal, which is the biggest company in the world, and two years ago, probably the biggest was Arcelor, Mittal is twice as big now and people see mergers and acquisitions differently now because, maybe not two years but five years ago, nobody would pay that kind money for a target what people pay now. Before, you would probably pay 200$ per ton of capacity of the company acquired; now, some of the acquisitions, people pay 900$ to a 1000$ per ton of capacity, so definitely people are more convinced that acquisitions and mergers are the way to go and they will invest in acquiring new capacities. You probably want some sort of screening processes before you make the acquisition just to have an understanding of the differences between the companies.

KN-I: If we look at Arcelor, if we look at big companies and their growth, we first thought that we should do the same; to be the same size, to compare with the biggest companies and to compete with effectively with them. The second point, if we looked at, let's say, big shops, and small shops, they are unique. So it's the other way. And you can go this way to be unique, to be differentiated [...] I think that the experiences of Mittal are rather good in this. So he's got a management team. That team goes to the acquired company and builds processes. That's one manager on supply chain, one manager - on production, one manager - on sales and local markets, etc. So, the first thoughts of workers will be on, what the managers or the owners are going to do. These are my thoughts. So, psychologically, they will be ready for changes because the main problem is change resistance, resistance to change. If you do everything at the right times in a proper way, through some programmes that workers can see and understand, it will be easier.

CV-I: I think that in the next five years there is a real necessity for mergers of the biggest companies in Russia. Because the struggle with Mittal is a possible separator. If we want to conquer parts of the world market, we have to merge and after that we just have to try to struggle with Mittal. Now I think there will be only two big players in the world market.

Despite the unique characteristics and perhaps artificial protection of the steel industry in the Russian Federation, managers therein began to systematically compare their own business organisations with major players on the worldwide stage and simultaneously initiated steps associated with gathering of information regarding M&A. Because this aspect represented a tangible aspect of managerial realities, it automatically elicited the following central question. What were the motivational factors for and the intended outcomes of these monitoring processes?

The existence of established procedures despite the earlier discussed absence of clear competitive relevance at the time of the study indicated, at least partially, the following explanations: an absence of specific managerial rationale. M&A activities of world major steel companies appeared to be simply monitored in order to identify suitable targets for future acquisitions or to acquire experience

through imitation. The second possibility is a focus on mergers and acquisitions of external competitors for achievement of competitive advantage - not within the Russian but the world steel industry and thus future related and characterised by a middle term strategic perspective.

Initially, this construct may appear somewhat implausible - due to the earlier analysed managerial statements regarding the failure rates of M&A. In this particular context participants explicitly acknowledged the former as a negative attribute of take over activities. Nevertheless, a clear contradiction emerged from the data. Selected statements included below strongly implied the existence of planning processes for acquisitions with the objective of achievement of competitive advantage.

In this respect, the overall strategic intent was not complementary with expressed views on the relatively limited success of such external growth methods in general. In turn, the incompatibility between managerial mindsets and actual, planned or implemented strategic actions in addition to relatively low levels of emphasis on future related macro changes may affect dynamic capability building processes in the Russian steel industry. With regard to possible reason for frequent monitoring of indirect competitors' M&A involvements, the final possibility may constitute active planning of processes within the pre-acquisition period guided by competitive survival. Still, in order to be in a credible position to approach this question, additional internal analysis of Company X is helpful.

Due to the amoeba-like structure of the "Russian troika organism", respective conclusions are somewhat transferable on direct "competitors" in Russia, namely Company M and Company N - due to both the extent of practical co-operation, consequential irrationally low levels of competition and hence their treatment as one dynamic unit of enquiry for analytical purposes.

The importance of this issue is amplified by the implications of respective managerial perspectives. The assumed objective of competitive survival would imply that managers - despite the factual absence of explicit processes for

external analysis - nevertheless, perhaps unconsciously acknowledged its importance. On the other hand, if achievement of competitive advantage was the main driver behind the described phenomenon, the question arises whether it included conscious processes for screening of potential for resource combinations (Ensign, 1998; Finney *et al.*, 2004); both pre- and post-acquisition to support this particular objective. From a view purely based on data regarding external analysis, managerial concern for survival must be eliminated as an option due to the earlier discussed factors in the context of both macro and competitor's analysis. As participants commented:

KN-I: First step - open sources analysis (news, information for investors if this is a joint stock company), then a contact with main shareholders (organise visit to a company, closer acquaintance with a business) and at the end - "due diligence".

LV-I: It's the first one we are not considering while doing due diligence, while we are doing assumptions about the costs of this acquisition and so on. When we are calculating the benefits we are too optimistic in terms of how quickly we gain these benefits. [...] After an acquisition, we don't gain more information about equipment, we know everything before. So it's not a problem today. But culture is a problem and clients are a problem [...] we have specially educated guys; each guy is responsible for some region. For example, there is a team America, Western, not Western but North America, there is Western Europe, Asia and these guys investigate and find out the possibilities for M&A. They have, how to say, some inputs, data: it will be the steel plant, it will be, I don't know, at least three million tons, and so on. After that they investigate their own steel plants within that region. They are trying to find out all the legislation problems, try to find out all the hidden reasons not to buy or to buy. And they are working for this. Then they make an offer: do you want or not. That's the first approach. It's more strategic because we know that Latin America, for example, Brazil is cost-wise the same as Russia in terms of firing ore and we want the Chinese ore companies: the labour costs are very low. [...] We then try to find out the object for acquisitions [...] we know that acquisitions are the only way to develop further.

Specific procedures for pre-M&A screening are now explored in detail. The information about the pre-acquisition period above confirms the existence of *continuous* attempts to achieve competitive advantage through M&A as a major motivational factor for this method of external growth. This is regardless of the somewhat contradictory theoretical status quo on this issue in general and the lack of respective existing research from DCV influenced angles in particular.

At the same time, in order to facilitate a more holistic approach, it is necessary to avoid clear statements regarding the reasons for world industry observation which were solely based on the existence of attempts to gain competitive advantage through M&A. This is mainly because the above list is neither

exhaustive nor exclusive. In other words, the co-existence of more than one option is, if not plausible due to the factors included in the discussion above, at least theoretically possible.

Furthermore, managers may not have had identical motives in this context or not been consciously aware of reasons for the described action. Therefore, their evaluation represents a narrow account only whose existence nevertheless acts as a prerequisite for critical analysis from a clearly defined, DCV influenced position. Because the purpose of the thesis is identification of dynamic capability building processes in the steel industry, the information provided by participants was regarded as accurate from their own point of view - it represented their beliefs and understanding of reality. However, due to the natural distance which is characteristic for strategy research and the additional more structured "bird's eye view" collected data facilitated, certain discrepancies within the narrative accounts emerged.

7.4 M&A Post-Acquisition Period

With regard to the post-acquisition period, two main themes emerged from the data. The issue of constraints related to *cultural* factors (Schraeder and Self, 2003), both in organisational and geographical spheres of the concept. These issues are not directly related with the objectives of this study. Nevertheless, the focal point of enquiry within the wider discipline of strategy can not be fully separated from respective theoretical concepts, not even for analytical purposes because common issues such as culture and integration, for instance, camouflaged practical problems highly relevant for the tasks of strategic managers. This is because of possible gains of momentum in the post-acquisition period; these issues imply at least the theoretical risk to develop self sustaining abilities to accelerate both in scope and speed. In turn, this could change internal, intangible resource bases and capabilities.

Yet, if these changes are not identified by the senior level of business organisations of the acquiring company, key individuals would be unlikely to identify potential for resource combinations, in particular within M&A contexts

- mainly because these predictions were based on inventory of past resource bases and respective limited relevance for the original objectives. For this reason, this must be regarded as *one* influential parameter of action which can be acknowledged in relation to its highlighted importance within pre-acquisition screening processes but affects post-acquisition strategy implementation.

Conversely, it remains questionable if respective factors can be predicted in this context as there are perhaps too many variables: M&A represent complex changes and periods of fundamental transitions. The complexity not only derives from the addition or replacement of intangible resources or capabilities (Goold and Campbell, 1998; e Cunha and da Cunha, 2006). The latter themselves are subject to wide reaching re-shuffle, because changes in tangible resources, such as the turnover of key personnel, for example, may affect the way existing or newly added intangible resources are identified, perceived, evaluated and employed within capability building processes.

In other words, although M&A automatically offer alterations most visible through tangible resources and employees, they are nevertheless prone to affect potential for intangible resource combinations. This is simply because the senior level of the acquiring organisation is put in positions responsible for resource exploitation and utilisation. If this fails to materialise, however, *both* potential for new resource generation and possible existing resources within the target company are wasted and thus acquisitions not only represent methods of external growth which are generally perceived as risky in financial terms, as discussed above, but additionally may similarly bear certain risks in more strategic, resource related terms.

It can be concluded that resource combinations and the potential for capability building through M&A is a process which requires pre-selection of targets based on assessment of existing resources and potential for resource combinations. At the same time, the described procedure may presuppose awareness of the natural limits to value creation such screening activities may offer in certain cases, if they represented stand alone activities. Moreover, the main subject of this study is dynamic capabilities, therefore the complexity is

further enhanced through the future related impact of macro environmental factors.

Although necessary according to individual managers, any pre-M&A selection purely based on potential for resource combinations is unlikely to offer advantages - if no clear links with external dynamisms are established (Buenstorf and Murmann, 2005; Liechtenstein and Brush, 2001). Nonetheless, exactly the latter action increases the complexity and the grade of difficulty from the managerial perspective, thus creating the somewhat paradoxical role of managers being forced to choose between either a strategically dangerous pathway which ignores dynamisms at the pre-acquisition stage and thus reducing the potential gains from resource combinations or the explicit assessment of external changes which add several layers of complexity to the exercise. In turn, these would consequently reduce successful incorporation into daily strategic procedures.

The solution to this dilemma may rest within clear definitions of managerial objectives, i.e. competitive advantage or survival and clarity on DCV insights in either case. The question arises whether the outlined problematic aspects mirror participants' views and levels of awareness; established through review of the statements included below:

PV-I: Within [the] integration process, I think, the main factor that can contribute to the fail is conflicting corporate culture.

LV-I: Culture is a problem.

KN-I: It's not appropriate to change the entire management, because it's too hard. It breaks all relationships in the company. It's not right. So we need some balance of new managers. The people at your side are the great potential of success of the acquisition.

VV-I: If you really want to create a global player, you have to consider company's culture. You have to understand what you will do with this company, after you acquired it or you merged with it. In other cases, if you just see that a company is undervalued and you have spare money or you can borrow it from some financial institutes, then you buy it. But then you don't understand what to do with it. Yes, you own this and you receive profits. But you can't control it because it's just paying your dividends and so on but it's not integrated in your infrastructure. I think such mergers will sooner or later spin out. Will act like an institutional investment, buy it cheaper and sell it afterwards at half the price. So for a merger to be successful, we have to solve strategic problems, how we will interact, what synergies can be achieved, what does it mean, what processes; we have to consider what is the synergy we can gain from this merger, to be a real merger. Considering these factors will be a separation from just institutional investments. We have to understand how this acquired company will fit in your value chain and so on. Not just, okay, we generate 10 millions per year, so I will buy it for 30 millions and I will have the money back in three years when I will gain profits [...] if you plan to acquire a company you just need some money. But if you want to implement it you have to have a strategy.

Perhaps the most important insight from the comments above is the fact that any artificial distinction between the pre- and post-acquisition period for analytical purposes may not complement the DCV perspective. This is because one of its main theoretical foundations is the assumption that internal resource bases need to be in constant flux, directed and powered by early anticipation of external changes, in order to provide any contribution to competitive survival.

If this is not the case, the practical value of resources is close to zero from a strategic perspective aimed at facilitating survival, ideally the central objective of managerial role. Transferred to the M&A context, however, assessment of resource bases pre-acquisition fails to contribute to this objective. This is because once identification has taken place, both natural time lags between actual integration and dynamic changes within the far environment are likely to eliminate the intended benefits.

The observation triggers a central question. How can senior managers select suitable target objects if the criterion of suitability is not determined by financial predictions but replaced by identification of potential for dynamic capability building?

Collected data suggested that the exercise would, in any case applied to the steel industry, represent extremely complex tasks; perhaps only feasible on an abstract, theoretical level and thus incompatible with the analysed parameters of the Russian steel industry, as discussed above. On the other hand, if valid, and

somewhat in contradiction to existing literature, the importance of the pre-acquisition period and actual screening processes is relatively low for dynamic capabilities, then it is nonetheless important to identify the following role of *post*-acquisition factors or other, less obvious connections with dynamic capabilities building.

The points raised above do not minimise the assumed role of external analysis as the two issues are separately evaluated at a later stage. Thus, exclusively based on data discussion, DCV assumptions are not fully transferable on the pre-acquisition stages of steel mergers and acquisitions. In this context, a manager commented:

CV-I: I can say that, for example, acquisitions, as I think, it's just a game: you are a player, you have money, just take part in a tender [offer] and if we lose this tender then somebody else is trying to buy and develop it. From that account, if for example the tender is successful, then it's very easy just to buy a company and just to make your own policies inside of this company, maybe to change a little bit of the culture, it's not so difficult. But if we talk about mergers, I think it is very serious and a very dangerous process. Because wherever there are different cultures, wherever different mentalities, we can even compare the quantity of specialists working in directorates; for example the quantity of specialists working in Russian managements will maybe five or six times bigger than in European companies. And after merging, of course, the policies will be changed and actually a great amount of people just stay without jobs. And so on and so on. But on the other hand we can speak about salaries: if we are working in one big company, which has been merged, even we can not understand what kind of salaries will be after merging, because if we can just remember the acquisition of, no, it's not a good example, because, I can not give you any clear example of mergers [...] you have to combine strategies; you have to make something whole. I think it's very dangerous and it's a very long term process. It's not so easy. To sell your shares, just to combine the companies, to sit for three days at round tables, to discuss something like: "It's okay, we are working together". But the results can be very interesting. I'm talking about companies from Europe and American, not inside of the country. We have the same culture, the same mentality, the same, maybe, salaries and so on. So it is very easy to combine inside of the country. But it's a great risk, maybe profit, to combine with companies from other countries.

The narrative account above confirmed the earlier analysed status quo of the Russian steel industry at the time of the study, with factual absence of competition, little or no differences between major players and the identified trend towards consolidation as both a logical and realistic progression. Any acquisitions of smaller, less powerful business organisations within the Russian steel industry would, according to participants of the study, be easier to implement than moves towards geographically external company takeovers. At the same time, despite the observed period of consolidation within the specific

steel environment under investigation, the general trend was relatively universal in nature at the time of the research.

Business strategies were based around M&A. They are perhaps the most visible implication of macro factors rather than subject of internal decision making processes. Therefore, the complexities of the world steel industry would similarly apply to the Russian "troika".

The quote by CV-I indicated at least awareness of the practical challenges such steps towards external growth through foreign acquisitions constituted for Company X, M and N. Accordingly, post-merger phases emerged from data as generally long term processes with high degree of risks. This was explained by differences in organisational and national cultures and related aspects. Despite this clear managerial statement, the initial motivation to follow an M&A strategy was described as the pure existence of an ongoing "game". Accordingly, company leaders had access to funds to participate in the latter, and these financial advantages, not evaluation based on logical rationales, triggered respective activities in the first place.

Screening processes for M&A were based on questionable objectives, mainly achievement of competitive advantage. The latter's existence in itself is debatable with regard to the sustainability issue (Eisenhardt and Santos, 2002). In addition, screenings' general inaccuracies due to accelerating industry dynamisms and failure to identify changing resource bases and hence relative strategic "blindness" with regard to selection of suitable target companies and apparent incompatibility of dynamic capability building with M&A processes as described above, emerged from the data.

This triggers the question whether members of the senior level of Russian steel players were prepared for the changes ahead, from a strategic viewpoint. Cultural integration problems were somewhat employed as explanations for failure to achieve proclaimed goals. This must be evaluated on the basis of relatively limited analysis, before, during and after the extensive buying processes.

Thus, the question arises: how did the managers justify attempts to focus on foreign takeovers if they were both aware of the difficulties to achieve their own set targets through respective decisions and simultaneously identified substantial problems in relation to practical integration and implementation of their strategies?

Apart from the factual absence of stakeholder influence on the Russian key players and hence the relative freedom for the managerial levels in their decision making, the power of external, macro environmental forces is very much emphasised through this example. The strategic managers knew that the zeitgeist itself was leading towards a peak of M&A in the steel sector. Thus, certain pressures to participate in the "game" replaced strategic analysis and forward thinking.

Nevertheless, it was necessary to add mergers and acquisition to the industry-specific test application of acknowledged DCV findings, mainly due to following question: how could managers define competitive survival if the entire world steel industry steered towards consolidation?

In practical terms, the two issues were clearly interlinked. If threshold capabilities increasingly included dynamic capability building in high velocity environments, but simultaneously consolidation took place, then the act of M&A became elements of dynamic capability building in this specific situation. Still, these activities would not represent sufficient entities to complete respective action. They should be regarded as a stepping stone within a wider set of activities necessary for achievement of threshold capabilities.

In other words, data suggested that survival in the steel industry at the time of the study could possibly be defined as the ability to continue operations as independent units, in the case of the Russian steel industry in the earlier described amoebic form of bundled companies X, M, and N, indirectly protected against take over attempts through country specific political parameters, but also through their own forward action as symbolised by

attempts to realise hostile bids themselves. Still, this issue needs to be revisited in comparison with main findings from the literature.

The situation was paradoxical in nature. Managers did not regard M&A as key to their competitive survival, but embarked on it for other, seemingly "non-strategic" reasons or just for the sake of growth. Yet, exactly these actions are likely to have represented unconscious acts towards dynamic capability building at the time of the study. The question arises whether partial failure to understand certain strategic deficiencies, external forces and their manipulative powers and dynamisms had any negative impact on competitive survival at all at the time of the study. More likely, their action must be regarded as *positive* and symbolic of an acute sense of external signals, despite the displayed lack of explicitness.

For the reasons aforementioned, the DCV perspective suggests that strategic decision making with the objective of competitive survival within the Russian steel industry with all its characteristics was dependent on the following factors.

- Firstly, analysis demonstrates that mergers and acquisitions played a very limited role in this context but were nevertheless an important pre-condition of any such pursuit; due to the reason that acquired companies would fail to exist as independent units in strategic terms. Simply put, protection against hostile take over attempts naturally represents an important foundation of competitive survival.
- Secondly, managerial steps as described above nevertheless resulted in incorporation of M&A as the central element of business strategy, thus *theoretically* fulfilling this pre-condition.

Because acquisitions of Russian major players were partly based on questionable procedures, it was unclear whether any practical progress towards dynamic capability building existed in this context. Analysis revealed the following:

- Mergers and acquisitions, despite their important role, did not constitute *main* elements of dynamic capabilities building.
- These processes were indirectly somewhat dependent on but not employing M&A or elements thereof for this particular purpose within the steel industry at the time of the study.

This account represents the basis for the following evaluation of data from the adopted theoretical angle as outlined earlier - through acknowledgment of DCV assumptions but simultaneously critically testing the latter's real life suitability through the selected application to the steel sector.

Previously, it has been demonstrated that the M&A process may obtain a more peripheral role in this narrow context than findings from the literature survey (e.g. Helfat *et al.*, 2007) suggested. For this reason and in order to facilitate both free flow of analysis and openness towards findings, the following section refrains from artificially *forced* efforts to connect mergers and acquisitions with DCV findings. This procedure, however, does not eliminate the possibility of emergence of such connections from data - nonetheless, these instances were subject to critical evaluation based on the previous insights as explained above.

CHAPTER 8: DYNAMIC CAPABILITIES AND INTERNAL FACTORS

8.1 Internal Analysis Company X

Due to the routine-based nature of dynamic capability building, internal analysis represents an important element of the overall exercise. The specific purpose of the internal analysis section within this study is to allow for exploration of the impact of earlier discussed country and industry-specific foci on key players operating therein in more detail. Furthermore, it aims to clarify the wider context and its specific impact on strategic decisions and actions within the narrow area of enquiry.

Context and background

The purpose of this brief section within the overall thesis is to offer some verifiable guidance regarding the physical appearance, self declared strategies as well as evolution of Company X as the selected business organisation representative for the three major Russian steel players and respective implemented action in the past.

Examples for these milestones concerning firm evolution are realised or planned M&A activities prior to and throughout the conduct of the study. In particular the included rationale for development of main and embedded units of analysis, as well as the DCV angle, facilitated a relative independence from organisational aspects. The specific position of context and background within discussion of collected data is justified by natural links between internal and external factors with regard to dynamic capabilities.

Company X, a public company listed at RTS Moscow had about 53,000 employees in the year 2003. Despite its official "incorporation" in 1993, early steel making activities dated back to the 1940s of the former century and were originally caused by the Soviet regime's demand for respective material. Perhaps most important with regard to the focus of the study, acquisition activities of Company X commenced in the year 2000 with the take over of a

rolling mill in the Russian Federation; subsequent expansion into foreign geographical markets through M&A was perhaps most symbolised by the acquisition of a major US steel organisation in the year 2003, a deal valued at around US$285 million, followed by similar sized moves into Italy, for instance.

Despite earlier mentioned idiosyncrasies with regard to strategic analysis procedures and their incorporation into daily routines and process development, the director of Company X decided to send all managers and senior managers to the United Kingdom to receive management education in the form of Executive MBAs, including several elements on corporate strategy, strategic decision making, the impact of dynamic environments and issues associated with sustainable competitive advantage. Internal documents (ZV-R) indicated, however, that a relatively successful evolution over time into one of the biggest steel players in Russia may have acted as a major obstacle to both incorporation and implementation of theoretical knowledge upon return to their managerial realities. The remainder of this thesis highlights consequences for dynamic capabilities building which, at least partly, result from respective blockages. Nevertheless, it is important to note that the former may additionally be due to industry characteristics *in combination* with internal, culture related factors as identified above.

Due to the first phase of acquisitions in the Russian steel industry, Company X achieved so-called raw materials self sufficiency for iron ore and coal. RV-R indicated that the criteria upon which Russian steel makers should be evaluated with regard to future survival and competitiveness, included the following main elements: raw material possession through vertical integration, own transport infrastructure and energy bases, investment programmes based on cost reduction, domestic market share dominance, highly developed production facilities and technology access, and established management systems which acted as co-ordinating instances.

However, the list above may neither provide the basis for dynamic capabilities building activities nor increase competitiveness because it appeared to constitute

the norm adhered to by Russian major players at the time of the study, an example for "false threshold" resources as introduced earlier; as a consequence, the reported absence of additional features in this context may be regarded as somewhat disadvantageous given the observed harmonisation tendencies between Russian and world steel industries. This is due to the fact that distinction would not be possible through achievement of the listed factors alone, neither within the Russian Federation nor beyond.

The following section investigates in more detail declared strategies of Company X and possible tensions with participants' accounts and realities.

Declared strategies

CV-I: There is one man who is responsible for everything. And he is responsible for the profits. Because this is his money and it's in his interest to collect just as much money as he can. This is in his interest, to develop the company, because if he will stay in one position, then some years later there will be great problems for him just to stay in the market, selling the products. Or maybe just to conquer other markets. That is why only one person is now responsible for everything and only one person is the motor for the whole organisation. And everybody is just trying to generate ideas for him. And he makes the decisions; from these ideas. Where he is going to go, what he is going to do at home and so on.

Given the statement above, it is necessary to review both mission and declared strategies of Company X to identify the direct influence from the most senior manager at the time of the study. The following public and freely available information has been selected for closer examination. The mission statement as declared below:

To be the best partner for all interested parties:

- To create competitive advantage for our customers
- To generate attractive markets for our suppliers
- To deliver superior and sustainable return for our shareholders
- To develop creative potential of our employees

The points raised above may contain contradictions. Competitive advantage may not be created for customers. In single and rare cases, as explained earlier, business organisations may enjoy competitive advantage for limited periods of time. To relate achievements with customer benefits, however, implies a certain misconception, both in terms of terminology, logic and understanding of

strategic issues. Furthermore, markets may derive from products and technologies; in very rare instances this process can be triggered by actions of one particular organisation. More frequently, new products are developed within industries in order to address developments and trends in the macro environment. Consider search engines. Companies in this specialised area have merely responded to and utilised technological possibilities, arguably at the right time due to identification of socio-cultural developments. Although companies such as Lycos and Google created their products relatively early and became major players, it is due to external, macro trends that this particular industry emerged in the first place about ten years ago.

Because of these important aspects and the fact that Company X did not provide innovative product developments at the time of the study, their claim above must nonetheless be challenged on this account. This is particularly supported by the observation that the majority of suppliers in the Russian steel industry were vertically integrated by Company X, M and N, thus eliminating any value from respective activities from the suppliers' points of view.

Moreover, it is highly questionable why this particular issue was included in the mission, given the above described factual absence of external suppliers in the geographically narrow micro environment of the Russian Federation. Even if the statement, hypothetically, referred back to the world steel industry, the level of technological standards and procedures may render such assumptions both implausible and improbable if matched against real life parameters.

In addition to the critique made above, shareholder value creation as the central element of the mission of Company X must be viewed critically for the following reason. If mission statements represent the purpose and raison d'être of organisations as opposed to the intended future goals as occupied by company visions, profit generation for one powerful majority shareholder - in the reviewed case represented through the director at the time of the study - may somewhat ridicule the entire exercise of both developing and displaying similar announcements in the first place.

On the other hand, and perhaps more relevant for the specific research questions of this study, Company X described its corporate strategy as the following: "to become one of the global profitability leaders in the steel and mining industry through a long term focus on the attractive value added markets". This account was amended by description of the following strategic "priorities" included below:

- To focus on high margin value added and niche products worldwide
- To be among the cost leaders in every region of Company X' presence
- To ensure strong resilience to the cycle and industry leading margin sustainability
- To enhance value of the existing assets and add to our growth portfolio through active yet disciplined M&A strategy
- To develop a global platform for best practice sharing and competences development

The declared long term focus on external markets may somewhat contradict earlier findings from data within this discussion chapter, i.e. the observation that, from a strategic perspective, future forecast of managerial staff was not based on the outcomes from respective analysis and the establishment of respective routines. Earlier, it has been shown that the three major players within the Russian steel industry downplayed the status of respective issues.

Therefore, the credibility of the declared strategic priority may be considered relatively low, mainly because of its incompatibility with "experienced" realities and beliefs of research participants. Interestingly, the intended provision of "new" markets as discussed above constituted a direct contradiction to the objective of cost leadership as the declared cornerstone of business strategy. Whereas M&A were explicitly included, the terms "portfolio" and "strategy" in this context seem partly inappropriate because, as previous sections have demonstrated, most acquisitions represented, in fact, independent deals with little or no integration or resource combination and configuration efforts, and characterised by the absence of an overall strategy for external growth activities.

The emerging picture additionally revealed that the ownership structure of Company X did not encourage managers within the strategic planning department to critically question, modify or challenge the chosen pathway of

strategic decision making, as developed and promoted by the director. This is directly confirmed by the comment provided by CV-I above, which indicated relatively high power distance between senior managers and the strategic leadership of the organisation.

8.2 Analysis of Dynamic Capability Building Processes

General

This section can be described as of central importance for this study as it represents an attempt to investigate specific processes associated with dynamic capability building in the Russian steel industry and thus tentatively addresses the earlier identified black box and major shortfall of the DCV through an attempt to add new insights to the body of knowledge.

The main purpose of this section is understanding of managerial views on issues associated with resource combinations in dynamic environments, thus representing the initial step to further insights on the dynamic capabilities building gap in the literature through the narrow focus as described earlier. Due to the two-stage coding process, interview data had been allocated previously identified themes in the first phase. Nevertheless, the analytical discussion reflects openness within the second stage of coding towards emergence of insights which may not derive from the reviewed theoretical body.

Nonetheless, because this section represents a critical element of the thesis and approaches the dynamic capability building processes themselves, the value of literature based, purely theoretical angles which were introduced earlier must be regarded as limited - simply because of the identified limitations of accumulated knowledge within this specific niche. Therefore, it is necessary to simultaneously evaluate the overall insights from this data discussion in relation to theoretical insights in order to identify the overall value of this particular contribution to the body of knowledge.

The following order facilitated this rationale:

- Testing of potential for practical applicability of existing DCV knowledge to the steel industry through transfer on and comparison with managerial realities which themselves have been shaped by this narrow context and their own experiences therein: this may be described as the pure application stage and formed a preliminary instance only
- Identification and explanation of contradictions and limitations within the limited DCV literature. Conversely to the philosophy of the literature review, this part is characterised by attempts to incorporate strengths of the supplied knowledge base and initially transfer it on the steel context.

Any such pursuit, however, naturally triggers further problematic issues. The reviewed knowledge itself, for example, attempts to generalise across industries (e.g. Teece, 2007) and, apart from basic incompleteness, has certain technical constraints in relation to its employability. Also, exploration of possible "distortions" of the managerial lens or acknowledgment of context-related issues is acknowledged to increase credibility of the analysis. An attempt to synthesise the listed factors to establish a *balanced* contribution to the DCV is thus presented.

This last step in particular is dependent on the described logical progression and constitutes the main unit of analysis, dynamic capability building in the steel industry. The exercise and its formulation re-emphasises that transfer of respective findings on other competitive environment may not be possible, because generalisations may appear inappropriate due to the nature of the conceptual issue. Their widespread occurrence has previously been criticised as a major shortfall of existing studies.

The focus on the unit of analysis has generated logical perceptions whose specific value for the discipline of strategic management is clarified in the final conclusions chapter of the thesis. Accordingly, it is important to demonstrate awareness of the fact that both theoretical knowledge and collected data, in their

function as informants of the research, can never be flawless. However, in the context of the analysis, this offered opportunities to investigate the central issues in greater depth and simultaneously increased credibility, trustworthiness and potential practical applicability as it is based on the status quo of academic knowledge and observed realities, instead of incorporation of hypothetical instances with little or no linkages with the business world.

In this specific context, a manager provided the following statement:

KN-I: If the management can rapidly make decisions and can predict what will happen; maybe the main aim of our department is to predict and to make forecasts of what will be tomorrow. And so the top management will be successful in making decisions at the right time.

The points made reinforce the fact that one general pre-condition of any capability building exercise is the issue of decision making "speed". This appears to reflect academic consensus (e.g. Eisenhardt, 1989). In view of this, not just the act of resource re-configurations in accordance with external changes, but also the ability to react within relatively short periods of time requires consideration from the senior level perspective.

The managerial lens somewhat confirms existing assumptions with regard to process based complexities of the theoretical problem. Yet, at the same time the statement by KN-I confirms the following: the major focus of managerial attention should not, for instance, be directed towards decision making at *one* appropriate point in time - in periods of rapid change any strategic assessments need to represent continuous processes and, most importantly, should be subject to retrospective evaluation if basic parameters have changed.

Hence, their evolution over time needs to be analysed, understood and incorporated into daily managerial activities in order fulfil this criterion. Still, constant re-adjustments may also be difficult to implement due to practical constraints in the steel sector. Examples for those are investments in new technologies which are both time lagged in effect and of certain irreversibility due to inflexibility. A different approach may be necessary: strategic decision making guided by constant anticipation of future development of macro factors.

The forecast exercise mainly derives its analytical power from acknowledgment of specific dynamisms, the nature or content of such change, but also incorporation of eventual path dependencies (Rosenbloom, 2000). It is nonetheless questionable if respective implementation took place on a continuous basis.

Prior to further exploration of the issue, it is necessary to further investigate if any insights emerged from collected data concerning this central issue within strategic management, especially due to the occurrence of the following scenario and its wider implications. Once a steel producer understood and acknowledged the changing nature of external factors, the next level of action would be characterised by resource configurations which addressed the identified "yet to come" changes with the ultimate objective of capability building. A number of factors require particular emphasis. Data show that selection of resources and their possible sources of origin - i.e. this may include assessment of resource material, either existing or newly added through acquisitions, are criteria which determine suitability forecast for the exercise.

Whereas managerial foci of participants were somewhat limited with regard to external forecast and scanning procedures, this may not imply any direct negative implications for the act of dynamic capability building. This observation derives from the fact that no studies have investigated respective processes within this particular micro environment. Evaluation for this study needs to be conducted based on the full picture of findings emerging from data. Nor do deficiencies with regard to this type of analysis hint towards complete absence of internal processes of resource combinations.

In other words, although these may not represent appropriate responses in terms of strategic fit as they are likely to fail to address the future of the industry, an investigation of this issue may reveal important aspects which still contribute to the contribution to the DCV body of knowledge through subsequent theorising. Henceforth, the presented analysis does not represent pure real life observation but attempts to make sense of a complex variety of data which themselves are of

multi-faceted composition. In this context, the first question is concerned with the resources themselves. Data confirmed that managers distinguished between categories of resources - an occurrence which may act as a possible sign for more sophisticated internal strategic analysis procedures. As ZV-I stated below:

ZV-I: In general, if competition is weak, it's enough to have tangible resources. But by the time competition becomes stronger, our intangible capabilities and competencies become more important [...] the importance of non-physical resources will be critical [...] companies should monitor changes [...].

However, given both contexts and perceptions of individual managers and their business realities, somewhat contradictory evidence arose and required clarification. Firstly, the factual absence of competition in the Russian steel industry at the time of the study implied that possession of *tangible* resources represented critical success factors, according to the above comment. Yet, earlier sections have explained that participants regarded threats to competitive survival as quasi non-existent. Consequently, the adverb "enough" as employed by ZV-I, is likely to be associated with competitive advantage from the managerial perspective. This triggers the question if, even in both artificially created and temporary conditions of industry attractiveness through competition infringements, tangible resources may contribute to achievement of competitive advantage.

Any temporary competitive advantage in the Russian steel industry was, to a considerable extent and under tentative assumptions regarding its existence, based on manipulation of competition; thus somehow resulting in the conclusion that "tangible" represented a loosely defined instance from this particular angle. Moreover, the statement by ZV-I once again, assumes managerial control on micro and macro environments. Apart from the fact that external factors offer no scope for variability from the senior level viewpoint (Stonehouse *et al.*, 2004), both continuous and active attempts to weaken competition were characteristic for this managerial lens and respectively a distortion as mentioned earlier.

The primary purpose of the following section is investigation of the specific role of intangible factors within the wider spectrum of dynamic capability building processes. This requires preliminary clarification of respective terminology from the managerial perspective. A senior manager stated the following:

PV-I: To compete successfully in dynamic business environments a company should have strategic advantage towards rivals. The term "strategic advantage" is used to describe an organisation's dynamic and unique resources that determine its competitive renewal. When resources that lead to drastic change are singled out, organisation can determine sources of strategic advantage. Competitive advantage can be regarded as the optimisation of existing resources to guarantee competitiveness in the existing market framework. By contrast and from a market or environmental perspective, strategic advantage makes the organisation consider new competitive challenges and new or changing markets. It challenges organisations to direct their attention towards the substantive changes necessary for their future viability and to build these by developing new strengths.

This declaration by PV-I is of central importance for any closer examination of dynamic capabilities building. It contains the basic assumption that dynamic capabilities had a certain hierarchical status within practitioners' perceptions. In combination with their apparent understanding of basic characteristics of the world steel industry, managers thus appeared to draw connections between achievement of individually set targets of major players and necessary requirements thereof as explained above.

In general terms, participants of the study expressed the view that the world steel industry was dynamic in nature - contradictory to the position of the external observer which suggested that certain dynamisms also applied to the Russian steel industry at the time of the study, regardless of their detection by senior levels of Company X, M and N or not. Detailed review of these comments may for this reason have an impact on the related issue of competitive survival - both within the specific geographical region and beyond in a period characterised by increasing convergence of world steel and Russia steel.

PV-I defined strategic advantage as synonymous with the ability to obtain unique and dynamic resources. Yet, from his perspective, the terminology contained specific meaning which requires further explanation in the following due to its divergence from more established theoretical definitions of conceptual

issues in strategic management: "dynamic resources" were neither directly related to nor connected with high velocity environments.

Conversely, this term described resources which were subject to configurations or combinations, led by individuals with the objective of achievement of certain degrees of renewal. Interestingly, a clear distinction was made between the theoretical concept of competitive advantage which, according to PV-I's position, constituted "optimisation of existing resources" and the term strategic advantage, in this context more associated with an outlook on changes in the environment.

Evidence suggested that the uniqueness of resources or capabilities derived from the optimisation processes themselves. Following this line of thought, similar to the major rationale of the RBV as reviewed within this thesis (e.g. Rodriguez *et al.*, 2002), planned or realised attempts to achieve any of Barney's (1991) criteria would form the basis of benefits in periods of relative stability. On the other hand, and perhaps representing a certain divergence from the wider theoretical framework and simplified for analytical purposes, PV-I assumed that competitive advantage was achievable through *exclusive* foci on internal capabilities.

At the same time, acknowledgment of external factors was mentioned, regardless of specific terminology. This is of special importance because managers viewed their industry as relatively stable. They acknowledged that formerly valid recipes for achievement of competitive advantage were perhaps somewhat outdated and difficult to apply at the time of the study, implying a certain contradiction in itself.

Despite the fact that managerial realities constituted the frame within which decisions making took place, the position of PV-I must be viewed critically because it implies the existence of a choice between two options for senior managers: internal or external analysis.

Both, as independent and completely separated entities, would theoretically offer some sort of benefits for business organisations in the steel sector. This is a problematic evaluation given the fact that neither resources as quasi self-perpetuating instances could possibly trigger "drastic changes" nor the managerial level of companies were in a position to always fully determine the minimum requirements necessary to respond to the latter.

Also, the occurrence of clear separation between activities associated with re-adjustments of existing resources on the one hand and observation of macro factors on the other hand must be challenged. This is mainly because, in steel realities, companies may be forced, in individual instances, to build on existing resources for capability deployment instead of being able to develop the latter from scratch. In other words, it should not be pre-supposed that incorporation of existing resources did not take place once companies focussed their strategic attention on observation of the industry or far environment. This assumption is yet implied through the comments by PV-I.

Nevertheless, transferred on intangible factors, some valuable insights emerged from the data included above. The pre-condition of managerial identification of suitable resource material was likely to represent one major characteristic of daily managerial activities within the steel industry, thus facilitating closer examination of the issue within this study.

Moreover, the former processes resulted in the necessity to radically move away from previously developed perceptions of internal strengths and weaknesses in order to build new capabilities. This action in itself may link these activities with DC because they represent constantly innovative activity patterns which indirectly perhaps counteract and prevent potential drifts towards competency traps.

To summarise this section, the managerial account offered clear indication of existence of internal processes associated with resource combinations and respective analysis. Simultaneously, however, it did not provide evidence of the specific role of and strategically analytical correlation with external realities (as

emphasised by Bogner *et al.*, 1999, for instance). For this reason, it is necessary to identify both examples and to identify the impact of dynamisms in more *practical* detail in the following section.

As stated in the literature survey, M&A represent *potentially* pure dynamic capability building processes (Helfat *et al.*, 2007) if they fulfil the required criteria of strategic application, in particular dependent on respective processes led by individuals. Exploration of this aspect represents the first analytical action.

Dynamic capabilities and M&A

KN-I: If this company gets these capabilities, I believe that these capabilities will be changed for "A" purposes, for "A" vision; and they even view these capabilities from their eyes. So they would be different capabilities even after they adopt. They transform them [...] in this case we are looking for resources and for other companies that can help us. And can help to achieve this aim. So we will compare with variants: to build such plants, to buy such plants and then in details, if we buy it, what else can this company give to us [...] when you know facts, you should look at given situation, maybe differ way were more popular in the 90s; when we look at nowadays and the future it might be more popular to do mergers and acquisitions. It's more popular because you can get others' capabilities and use them. But nowadays it looks changed. It's not others' capabilities but other effects you can get when you get big. I think that you have to look at different cases and use best practice at the case.

At the same time as dynamisms of external factors increased, *direct* value of acquired resources and thus potential for capability building decreased due to increasing complexities. However, this statement may only apply if viewed from the managerial perspective in the Russian steel industry as it clearly relates to both individual and collective strategic abilities of managers instead of being representative for the building processes themselves.

In addition, it becomes very clear that capability building, in realised instances, was determined through a specific starting point: the evaluation of these resources from the managerial perspective of the acquiring company, followed by specific attempts to adapt them towards business objectives of the latter. Under these circumstances, acquisitions and selection of target companies are led by "missing" resources and not by assessments of potential resource complementarities.

The narrative account implied an additional, potentially problematic issue related to the transformation processes themselves. Due to their somewhat incomplete execution, expected results were unlikely to materialise, hence triggering a negative cycle and perhaps the move away from conduct of this type of M&A. The included comment confirmed these assumptions as they somewhat outlined that more recent external growth activities were based on other motives than potential resource combinations. The question arises: what exactly were other "effects" mentioned by KN-I above?

Evidence suggests that pursuit of M&A gradually represented activities characteristic for self-perpetuating growth of major Russian steel players. Therefore, respective decisions were dominated by financial calculations, allowing the choice between either buying or building of plants, considerably detached from strategic rationale, purpose and thinking.

Thus, any additional resources which derived from acquisitions were seen as extras or mere side products and not actively incorporated into development of business strategies, thus representing clear indicators of wasted potential in this respect. From the standpoint of isolated data discussion, this must be seen as perhaps unfavourable and negative with regard to managerial learning processes for continued existence within the industry. The observation is subject to validation of the fact that significance of both available resources and capability building increases in dynamic environments, not the opposite (Chaharbaghi and Lynch, 1999; Rodriguez *et al.*, 2002).

Nevertheless, it is necessary to identify what managers learnt from resource combination processes through M&A *before* they decided, rightly or wrongly, to abandon such activities. As ZV-I commented:

ZV-I: It's one of the most important tools, mergers and acquisitions, to respond to environmental changes [...] not as big as we wish. We had two big acquisitions, in the USA and in Italy, and our management said that we will learn from these companies. Of course we had some knowledge exchanges between our companies but I think it's not enough. We could gain more from these co-operations. In general, if we say does it have a big impact or not, I think it's not so big.

Implemented takeovers resulted in "knowledge exchanges" in the post-acquisition period. The mentioned example of single acquisitions in the USA and Italy appear to belong to the first category of above described types of M&A in the Russian steel industry as they were both planned and realised with the objective of conduct of capability building exercises. Nonetheless, the account somewhat indicates that this did not result in achievement of set managerial objectives.

Furthermore, the comment implied that acquisitions potentially represent suitable responses to environmental changes. If associated with resource combinations and not mere participation in wider consolidation cycles, any such pursuit naturally requires the ability to anticipate possible future developments of these factors and clarity concerning the specific resources available; both inside the acquiring and the target company.

8.3 Specific Routines

ZV-I: It's very difficult to believe that we will have some problems in the future, if today we have very good financial results [...] we respond to changes at all levels of the value chain, in relationships with suppliers, in relationships with customers, in quality, equipment, people.

In concrete terms, ZV-I data revealed one important pre-condition for dynamic capability building in the steel sector: continuous managerial future forecast. In this context, the latter simultaneously undergoes a significant transformation from a necessary requirement *for* towards a central element *of* respective activities. This is because it represents a major challenge for the senior level: despite possibly excellent financial results and little evidence for *current* weaknesses within their value chains, they nevertheless need to regard their situation as challenging in order to initiate the strategic planning process. This, however, may appear counter-productive at any given point in time from the participants' perspective and thus increases levels of complexity of the exercise.

The observation is further highlighted by the fact that resource adjustments within the value chain may be of considerable importance within such

scenarios, but from the external observers' or stakeholder point of view hard to justify. For this reason, it becomes very clear that strategic leadership plays an important role if senior managers are faced with difficult situations of this nature: they have to understand their own resource bases, identify perhaps intangible and potentially causal ambiguous resources of target companies and need to be able to understand the outcome of potential combinations and their specific contribution to capability building; furthermore the entire construct needs to be placed in a position where it is able to meet challenges associated with future changes of the macro environment.

All the tasks described above are the responsibility of the leadership level within steel players. This level therefore requires a high degree of ability to conduct complex strategic forward planning and forecast and simultaneously defend the chosen pathway despite external pressures as previously mentioned. Apart from the general implications from these statements, such pressures indirectly justify the inclusion of the section on strategic leadership within part one of this thesis. Dynamic capability building and strategic leadership are inextricably linked and provide little logical value if investigated as separated entities (Abdell, 2006).

At this point within this chapter, the following, central question arises:

What *exactly* is the contribution of the DCV to competitive survival in the steel sector?

The two-stage coding process of data was very open regarding the emergence of possible answers to this problem. Nevertheless, the results are somewhat contradictory to previous predictions simply based on findings from the literature survey. This is because evidence suggested that certain - in subject discipline terms – "non-strategic" factors such as purely financial considerations, for instance, are perhaps of higher importance for the strategising process as generally accounted for within academic communities.

As NO-I commented:

NO-I: Our success factor is management of resources. So we must adapt our resources to changes in the environment. Also management of human resources, because I said that price of these resources will be very high in the future. We must make good investment in our capacities, for decrease of costs in production, for improvement of our operational effectiveness [...] we use SWOT analysis in our strategic business planning. We identify the main possibilities for changes within these factors in the future and we try to make good strategy for us.

The statement shows that any attempt to embark on dynamic capability building, under the premise that DC themselves are seen as influential threshold factors, requires continuous financial investments which have the following major purpose: the maintenance of existing resource material in environments characterised by rapid change. Naturally, operations are initially detached from external analysis as their continued existence within organisations' value chains is dependent on other, more indirect factors than response or anticipation of macro developments, for example. The depreciation in strategic terms is determined by the time factor itself. Its progression naturally means that new companies with similar resources may emerge, thus constantly changing the list of competitors and their strategic power; concurrently these observations imply the danger of ongoing accumulation of relevant intangible capabilities by existing players.

At the same time, new competitors' appearance on the stage might have a major impact on the resource managing abilities of business organisations from the managerial perspective, thus re-emphasising links between internal and external features. This is because new players' resource material are constantly thrown in and added to the ongoing game which is likely to change the fundamental parameters for the maintenance activities themselves. This observation mainly applies to the Russian steel environment with its fragile competitive balance, in particular, but further studies are required to fully validate its relevance for the world steel industry.

It is important to mention that data suggested no further options available to key individuals in senior positions apart from explicit incorporation of these aspects into daily routines because previous chapters have demonstrated that the

concept of competitive advantage is gradually being replaced by the issue of competitive survival through dynamic capabilities more recently. In turn, this is forced by generic acceleration across a variety of sectors and due to a number of factors which are outside the focus of the present study.

As VV-I commented:

VV-I: What would be yield? For example, we have to spend 1050 kg of pig iron to produce 1000 tons of crude steel. And from 1000 kg of crude steel we produce, for example, 960 kg of roll sheets and so on and so on. So I think we are discussing only yield qualifications for different options of development. For example, if we concentrate on auto sheets, what would be the yield of our mills taking into account the construction programme and so on and if we concentrate on pipe steel, and so on. I think it's more important. So the R&D department only takes care of concrete problems, for example, we have problems with melting of something, the grade of steel, what has happened, and so on but it's not actually strategic, from my point of view [...] in the Soviet Union there were great R&D institutions in the steel industry and they just invented new types of steel that were lighter, more reliable and so on. On a three-year basis they invented and invented and invented. During the 1990s all these systems were destroyed and devastated and right now they have labels on their drawers but there is no real originality inside. They are using luggage from the past. It's not appropriate in a modern world, I think. So we have to develop our R&D but this is not very good just for one company. Either, this should be some kind of national steel research centre or some kind of, or at least it should be bought from abroad. Because during the 90s, when Russia just tried to survive, some good R&D processes were in United States, Europe and South Korea and they didn't stop; they invented loads of stuff and if we want to survive we need to buy, I think.

In particular the final sentence of the interview excerpt above and its analysis illustrates the impact of country specific macro environmental developments over time on the Russian steel industry. Accordingly, discontinuation of scientific research and routines of constant supply of respective findings to major players had negative effects. These may be categorised as political and social factors more than technological as the nature of transitions was perhaps more rooted in changes in society in the 1990s of the last century and not due to to individual technical developments.

However, it is necessary to emphasise that the managerial account revealed certain degrees of retrospective justification: external changes were employed and described as factual explanations for emerging challenges for steel organisations in the Russian Federation; yet, from a strategic perspective, the cause of these problems may not be attributable to external factors themselves, but classed as internal weaknesses representing the outcome of specific strategic decisions.

At the same time, strategic actions to address the problems somehow point towards a number of factors important for the objectives of the study. The statement above outlines financial investments required for maintenance of resource capital. VV-I speaks in this context of "buying in" respective scientific findings in order to guarantee survival. Still, exactly this assumption must be regarded as a misconception because it implies that competitive survival, somewhat dependent on existence and suitable exploitation of dynamic capabilities (Hooley and Broderick, 1998; Aaker, 1984), is a stable entity which can be affected through managerial steps such as purchase of R&D knowledge, where feasible, through one off deals, other types of co-operation or acquisitions - mainly from countries outside of Russia which did not undergo this development.

As mentioned above, any such approach could facilitate maintenance of existing resources and simultaneous accumulation of "raw" resource material which nevertheless only constitutes the most basic foundation of exercises associated with dynamic capability building. Furthermore, it is important to note that this procedure has a number of basic disadvantages. Primarily, imported, initially intangible knowledge exclusively based on R&D is likely to have been developed in anticipation of dissimilar macro environments characterised by entirely different evolution, and thus present and future.

Despite the earlier described harmonisation of Russian and world steel industry, to obtain such knowledge may only constitute a suitable option for certain geographical regions. This, in combination with the fact that internal characteristics are naturally dissimilar implies the risk of strategic incompatibility (Wernerfelt, 1984; Lavie, 2006). Thus, despite their potentially positive contribution, financial investments in research knowledge were not *sufficient* actions in this context, neither for pure attempts to achieve cost efficiency, nor for resource renewal and maintenance, nor for any planned or realised embarkation on higher level capability building exercises.

Data evidence confirms this:

CV-I: Maybe in 50 or 100 years there will be no such great demand for metal at all. And in any case we have to plan the production of any kind of materials. Pipes, for houses, construction steel and so on. As for me, I think that in the next 50 years, less than 50 years, everything will just be in the progress and we have to develop the equipment, we have to upgrade the equipment, to install new kinds of equipment, to produce new types of steel just to increase quality [...] the very beginning, when metallurgical companies have been developed, there were many suggestions from universities and institutes for different kinds and types of steel. They just suggested a great amount of technologies how to produce steel. But now, this is really poor. We are just trying to survive using our equipment which has been installed many years ago. Or we are just trying to look to the West. To America, to Europe, and only they now suggest different types of equipment such as degradation cameras or something like that. They think that is a great problem for us because we don't use the ideas of Russian scientists and Russian institutes. We are just trying to run after the market. For example, if we need some kind of steel, this steel can be produced with some type of technology and the customer is trying to explain to us what kind of technology we need, asking is it possible for us to produce that kind of steel or not? And we are just trying to understand it by ourselves and only after that we are planning what we are buying or what we have to buy; what kind of equipment we have to install to produce this type of steel. But on the other hand, if we had really highly developed science, for example if we co-ordinated our business with institutes, we could for example suggest them another type of steel which we could produce with the existing equipment and we don't need to install anything else. But to prove them, of course we have to have very strong, I don't know, scientists maybe or European professional steel makers.

Narratives clearly indicated that internal technological push was *not* led by macro trends, given the identified advance and competitive edge of world steel players - nor was it subject to senior level initiative, as part of long term planning or in order to contribute to specific objectives. Customers, in individual cases, demanded products which could not be provided at the time of the study. Only because of this major deficiency, steps were taken to retrospectively obtain required technology, for example through acquisitions.

Despite M&A planning and implementation issues with regard to improvements of internal resource bases and thus respective elements of the value chain, these routine based weaknesses both contradict the original intent to address the lack of appropriate technology for foreign customers. Moreover, they decrease the likelihood of appropriate exploitation of newly added knowledge. This is particularly important given the often intangible nature of knowledge, as well as potential causal ambiguity, even from the perspective of the leadership of target organisations and further aggravated through limited access to intangible resource analysis prior to take over activities. Also, any such process may not sufficiently acknowledge existence of continuous change throughout the

process, i.e. natural time lags as described earlier. In other words, even if identification of suitable target objects took place, followed by successful post-merger integration, continuous advances in technology would factually eliminate any anticipated benefits from respective efforts.

Data discussion so far showed that capabilities which may ensure survival in the steel industry are *very* complex entities and, most importantly, subject to a variety of variable, amoeba-like, difficult to grasp influences responsible for and affected by respective dynamisms. In turn, evidence suggested that their development requires a considerable number of preliminary actions, orchestrated from the senior level. Failure to conduct these steps acts as a major blockage to implementation of any such activities. Simultaneously, exclusive focus on the latter may result in limited added value in strategic terms because of their factual role as exclusively preliminary stages without any further function.

Apart from these essential pre-conditions, described in detail above, an attempt to identify the higher level or core of the exercise is presented in the following.

For this purpose, a central statement by LV-I is included, critically reviewed, explained, analysed and transferred on the wider DCV context below:

LV-I: Just make money and don't think about the future. Today is okay; today you have a lot of money, think only about the period of one year, two years and enough. Concentrate on today, day to day operations. It's one approach. It's not very strategic so you may lose. But lose or not to lose, who knows? You make money now and you sell the good results to your shareholders, to your stakeholders in terms of financial benefits. That's the first. And also you will gain your own benefits from this. That is from the managerial perspective. And the second one is from the owner, from the shareholder's perspective. This guy is a very senior guy who wants to have a very good business for ages. He wants to operate a thousand years, for example. I don't know. And he is looking at changes in technology, in the environment, in attitudes, maybe he is trying to make this money, take it off from business and invest in other businesses, but it's his money and he decides what to do. If we have a team of managers with some interest, I mean with capital shares, we are also looking at this. So if you are a manager, if you are responsible for something, you are trying to focus on this. Because we have, for example, the strategic planning department. Actually they are looking at a perspective of 15-20 years. They are trying to predict steel crises, technologies, competition and so on and they actually present their evidence in order to make our investment programme, how we need to increase our capacities, improve it, where we need to go, what range of products we have to make, in ten years, twenty years period. They look at this of course. But today we don't see that the steel industry [is] on a decreasing line of life cycle. So we think that it's about twenty, thirty, forty years that the steel business is okay and makes money. So we don't plan huge steps in terms of divestments or investments in other businesses. It's more important to make money today. What proportion? If we are trying to measure it, I think at least 80% are day to day pressures and only 20 is that [anticipation of environmental changes].

The practical value of dynamic capability building activities is somewhat affected by the managerial planning horizon in this context. In concrete terms, this means that a time span of 15-20 years, as mentioned above by LV-I, naturally includes limited benefits, both in more general strategic terms and for the building exercises themselves. This is mainly due to the fact that environmental fitness of resource modifications requires certain degrees of anticipation of macro trend developments, fully incorporated into adjustments of existing resource bases.

All the same, even if resources are added to the resource base stock through acquisitions, for instance, their integration or utilisation as elements of capability building is only possible if the entire process is based on suitability (Schraeder and Self, 2003) under conditions of changed or evolving parameters; in turn, the latter's identification is fully reliant on respective routines associated with forecast. However, strategic forecast becomes progressively more complex, difficult to predict and unreliable congruently with the extension of the overall planning period and bears negative connotations with regard to decision-making speed and impact (Eisenhardt, 1989).

For this reason, and transferred on the DC context, it must be concluded that the process not only relies on macro environmental analysis as necessary pre-conditions, but furthermore is dependent on more detailed factors within this analysis. Development of such procedures for respective strategising represent elements of core managerial tasks. As such, nonetheless, it appears necessary to determine - in accordance with the individual industry structure and rate of change therein - the appropriate time focus of external analysis. Simultaneously, it is important to acknowledge that the industry itself may be subject to considerable evolution over time, and thus requires constant adjustments of the identified time span.

As VV-I commented:

VV-I: At the moment the strategic department is more associated with calculation issues. So there are several options that emerge for the owner and the group of top managers, based on their expertise and so on. But they can't calculate everything, you know, files, numbers that will be changed if we go there or in another direction. So they generate the ideas. And the strategic planning department is calculating these ideas, taking into account changes in prices, logistics, purchasing, and production, including repairing because in metallurgy repairs are very timely processes and we have to shut down some other upstream or downstream facilities to make processes flow. So sometimes, what the strategy department is really doing is saying: "this option seems to be very unprofitable. We will never get our money back or we'll have to wait for ten years. And this one is good based on some assumptions". So I think that's the area. And of course, you know, I'm speaking from the position of managers so, for example, senior managers and of course director, I think more the director than senior managers is participating in general strategic processes. So, you know, brainstorming options, where we should go and so on. But of course not every single manager or specialist is integrated. That's the main direction for our department. But there are some supplementary directions for strategic planning department: like, you know, controlling of business processes and dealing with joint ventures. That's because, I think, historically that are the tasks of our department. And they are not connected at any point with each other, it's not sales, it's not HR, but still somebody has to do it so we are doing this stuff that is not restricted by some basic area of conducting [means business area].

As previously shown, in practical terms, continuous audits of resource stocks may be described as self repeating elements within the exercise. Due to the diverse nature of these resources and their possible location within different functions, units or individual routines, this action is steered from the bird's eye perspective which facilitates overview and respective identification of potential or realised competencies. The comment by VV-I confirmed that this central task may be described as within the responsibility portfolio of the most senior managers within Russian steel organisations, in the case of Company X

represented through a director, from a superficial perspective seemingly powerful, yet simultaneously prone to a variety of probable strategic mistakes at the time of the study as indicated earlier.

Because strategic and emerging "options" are mentioned in this context, it is necessary to highlight the origin of these pathways. From the managerial account, the latter were rooted in purely financial considerations; both anticipated rates of return based on past assessments as well as the wider, company specific investment scope as determined by the present situation.

In comparison with the literature (e.g. Liechtenstein and Brush, 2001; April, 2004) somehow paradoxically, this may be seen as resulting in tangible assets being the single most influential variable for strategic planning from the managerial angle. Strategising activities led by senior managers through exclusive focus on available funds under simultaneous misevaluations regarding both the occurrence and number of available options may potentially result in negative results, even if measured by generic financial key performance indicators. Hence, solely based on the research data, this approach appeared incommensurate with the original directors' objectives. Even within the set boundaries of their own rationale. Nevertheless, this issue requires additional evaluation in the remainder of the current study.

Within dynamic capabilities building, the role and influence of pathways is somewhat dissimilarly defined: the available resource material determines which options are feasible to be realised, simply because, in terms of an analogy, construction of buildings may be impossible without constant, controlled, monitored and adjusted supply of essential raw materials[28]. This is due to the observation that dynamic capabilities are unlikely to represent entirely new sets of resources, neither are they simple re-configurations of previously available intangible assets. The building act itself adds new features to the resource sets, which, post combination may result in capabilities suitable to address new situational challenges.

[28] Within this study, due to previous explanations in Chapter 2-4, resource-based "raw materials" for dynamic capability building processes are mainly intangible in nature.

Accordingly, every decision naturally represents a decision against a different, yet seemingly available pathway. Nevertheless, it became clear from examination of the unit of analysis that the managerial understanding of options was detached from the specific steel realities, despite the evaluation of VV-I which suggested scope for selection from the director's point of view, implemented by the executive team members.

8.4 Dynamic Capabilities in Practice

As mentioned earlier, only relatively recent research activities appear to include more explicit foci on dynamic capability building processes. To provide an example, in their recent contribution to the area of dynamic capabilities, Schreyögg and Kliesch-Eberl (2007:930) introduced a so-called dual-process model of capability dynamisation. They came to the conclusion that "practical tests are needed to explore its workability and to specify in further detail the conditions of its successful functioning".

This statement has two major implications: first, it indirectly legitimises the *contemporary* validity of the research questions of the presented thesis because it attempts to understand these processes through narrowly focussed application. Secondly, it re-emphasises the need to conduct further research - detached from and beyond method and scope of this particular study. This is also confirmed by Green *et al.* (2008), for instance, who advocated more fine-grained future research characterised by more explicit observation of inherent practices.

Generally, participants of the study appeared to acknowledge the prevalence of linkages between organisational abilities to succeed in high velocity environments and intangible resources - but they simultaneously approached the issue from very distant and detached points of origin. Narrative accounts somewhat confirmed the purely superficial status of the issue. Conversely, Chapter Six has shown that the industry was subject to massive, ongoing changes.

The question arises whether participants chose to consciously ignore a relatively obvious transition period or if they genuinely failed to recognise its power and future implications. If the latter was the case, however, they would have been unable to identify the links mentioned above in the first place; this leads to the following conclusion: participants felt relatively "safe" in their domestic industry at the time of the study but simultaneously were both aware of and alert to dynamic changes in the world industry, mainly because of their extensive monitoring processes for M&A of major world players. It can therefore be said that the managerial lens itself was undergoing learning processes through imitation which nevertheless acted as a distraction from dynamic changes in their immediate, geographically narrow Russian context. The following section focuses on additional characteristics of respective processes.

Complexity and status of external analysis for optimisation efforts

Employment of the term "optimisation" detached from external analysis initially appeared questionable. Literature (Schreyögg and Kliesch-Eberl; 2007; Oliver and Holzinger, 2008) suggested that within dynamic environments realistic optimisation may fail to take place if any managerial focus on resources does not incorporate the basic parameters thereof. Still, this example further demonstrates that the DCV requires more focus on contextual situations because the steel industry investigation has shown that the importance of external analysis for dynamic capability building is considerably diminished in comparison with general suggestions from theory which nevertheless are not derived from industry application. This point therefore somewhat confirms that the DCV may not be suitable for such universal approaches and, in order to advance in terms of maturity, requires more narrow focal points of enquiry.

In addition, causal starting positions constituted difficulties within the analysis process. If business organisations base target selection for resource combinations exclusively on their current, internal resource status, they simultaneously, according to established DCV principles, appeared to commit potential mistakes which are described in the following. Any such decisions are based on the present status of companies' value chains and on respective

evaluation processes of strategic managers. Whilst such activities are important aspects of analysis within the wider strategic process, for this reason their specific purpose for the capability building exercise must theoretically be questioned.

This is due to the fact that such pursuit is of little value as an independent unit of analysis because it fails to incorporate external changes and thus considerably limits the potential for resource combinations relevant for competitive survival. If unable to facilitate competitive survival for temporary periods, however, what is its strategic purpose in the first place? Nevertheless, whether a participant's inability or unwillingness to conduct external analysis really had measurable negative effects on potential for capability building remains questionable.

In other words, the complexity and change not only derives from major external conditions and change therein but also from resource combination activities of competitors, constantly adding flux to the process and potentially eliminating the ability to predict the exact nature of threshold capabilities necessary for competitive survival at any given point in time. This point is of particular importance given the earlier discussion of both theoretical literature and data which mainly focussed on the influence of macro environmental change rather than the required variability of appropriate responses in such purpose related contexts (e.g. Lei *et al.*, 1996; Aaker, 1984; Chaharbaghi and Lynch, 1999). In financial terms, this may possibly result in major difficulties to simply protect existing resources which nevertheless constitute the basis for capability building. It can therefore be concluded that the DCV currently lacks clarity concerning the *roots* of dynamic change.

Data clearly suggested that the latter mainly derives its dynamic nature from a number of primary sources - these should be added to the body of knowledge in order to explicitly facilitate further narrowing of identified gaps with business realities: external changes continue to have a major impact as they ultimately act as the success measure of respective building activities. Consequently, in simple terms, the survival of steel players in the world steel industry under conditions of absent competition infringements, acts as a major indicator for

business organisations' abilities to build dynamic capabilities. Yet, evidence furthermore points out a move away from the assumption that the entire complexity derives from high velocity environments alone.

Two more, additional levels of dynamism are both introduced and explained in the following: first, the changing nature of threshold capabilities due to the supplement of new resource material through new entrants to the industry. Second, the strategic actions required for dynamic changes associated with the maintenance process of internal resources, i.e. steps taken to balance stock of existing stock material through financial investments in R&D, for example. It becomes clear that dynamic capability building is therefore more difficult to implement from the senior level perspective than existing academic papers (Ching and Tsui-Hung, 3006; Dutta *et al.*, 2005; Teece *et al.*, 1997) have previously suggested.

Thus, four key points are highlighted below and illustrate the *origins of dynamic change* in the steel industry:

- Dynamic changes in the competitive and far environments
- Dynamisms deriving from the constantly changing sum and nature of resource material within the industry
- Resulting constant changes in definitions of threshold capabilities and their validity for respective industries
- Dynamic actions necessary for resource maintenance

It is nonetheless necessary to re-emphasise that, in terms of value creation, the last point of the list above is not directly connected to internal resource combinations as described earlier; it exclusively refers to managerial action necessary to guarantee a constant stock of resource material of similar nature and scope for utilisation measured by temporarily valid definitions of threshold within the industry sector.

However, the described transformation of definitions for threshold resources or capabilities may not include automatic elimination of previous associations. In

more stable environments, for instance, cost efficiency represented an often cited example for factors allowing business organisations to stay in the game (Johnson *et al.*, 2005). Moreover, if competitive survival is increasingly related to continuous and effective building of dynamic capabilities, previous criteria may still apply; in this case the only difference would be their function - instead of acting as thresholds they would fulfil the position of facilitators and pre-conditions for the former.

Time span for external forecasts

Russian steel managers pointed towards dynamic changes, both existing and accelerating at the time of the study. Their selected analytical duration of a distant point in the future, approximately 15-20 years ahead from the point of analysis, must be deemed inappropriate in strategic terms - henceforth triggering the assumption that decisions were practically made without acknowledgment of external trends. This is partly confirmed by the descriptive account of proportions between daily business operations and future forecast. Interestingly, the managerial account revealed a clear distinction between the owner or single major shareholder's perspective, in the case of the Russian major steel players and the managerial angle. This is of particular importance given the fact that within this geographical environment, albeit subject to changes at the time of the study through more recent listings at stock exchanges, both the role of chief executive officer and chairman was bundled in the position of the owner.

This feature was characteristic for the industry and previously introduced in more detail within this thesis. Nevertheless, statements made by Russian participants implied that the level of strategic and senior managers, directly below the top level, indirectly and in comparison with the status quo of academic research in the area, displayed relatively little interest in both long term planning and future survival. In other words, despite the somehow unrealistic determination of time spans of planning processes, collected data suggested the absence of respective practices with regard to established routines and daily activities of the participant's group. Although this phenomenon might have been partly due to existing power distances between the two dimensions -

and context-specific for the geographical region under investigation - it is all the same necessary to examine this issue in more detail.

Earlier discussions have demonstrated that dynamic capabilities require strategic leadership as defined through the context of the DCV. Data have clearly shown that even senior managers directly below the director level failed to have both authorised freedom for decision making and strategic overview to conduct rapid responses necessary for control of the general complexities of the exercise. Nevertheless, in this particular case, both certain discrepancies and contradictions arose from data evidence.

The following question should be particularly emphasised in this specific context. Who should have responsibility for planning, embarkation and implementation of the exercise in the Russian steel industry, managers in the strategic planning department or the single majority shareholder? This study has shown that, based on logical considerations, the overall process should ideally be orchestrated from the highest level in business organisations, but nevertheless requires respective execution and continuous monitoring efforts from lower tiers; however, if middle managers exclusively focus their attention on day to day operations, despite a different, more long term perception and focus of the CEO, two conclusions emerge. First, neither long term goals nor daily operations are likely to produce satisfactory results. Second, dynamic capability building is blocked through communication problems between the two internal levels of power.

Imbalance external and internal factor analysis

It became also clear that the DCV represents more than identification of appropriate time scales for analytical procedures and strategic action based on the outcomes from external, future-based analysis. Perhaps the biggest paradox in this context is the fact that the criticism of managerial foci on *current* pressures facing steel organisations may not be sustainable within a more in-depth evaluation. Simplified, this narrow focus may only be seen as negative if it constitutes *the only* managerial activity within the strategic process. This is

because, naturally, the capability building exercises require daily adjustments, reconsiderations, modifications, and re-combinations of internal resources in order to both complement and compensate gradual or sudden drifts of main factors within the macro environment (Yung-Ching and Tsui-Hsu, 2006; Dutta *et al.*, 2005).

Therefore, any balanced analysis of participants' views needs to acknowledge that the described proportion ratio of around 80% current status and 20% future analysis *per se* may theoretically facilitate generation of dynamic capabilities. In fact, evidence suggests that the complexity of the challenge mainly derives from these daily routines and their positioning within earlier set objectives - because of external transition over time, projects are potentially indefinite in nature and thus difficult to justify, evaluate and incorporate into daily routines.

Also, the task of identifying the appropriate scope of future forecast may remain stable with regard to its complexity. For this reason, it may be summarised that practical difficulties mainly arise in the context of day to day operations. Nonetheless, the wider context of the accounts provided by managers which indicated the focus on mainly contemporary, operational issues pointed towards factors which over rule any positive evaluation of the latter.

The reasons for this are explained below. Evidence suggested that this was not the visible result of conscious decisions but more of a coincidental occurrence. Therefore, the listed proportion acted as a symbol for factual lack of control on the process on behalf of the managers. The distinction between long term planning and focus on daily operations was detached from dynamic capability building exercises, an observation which eliminates potential benefits.

Finally, managerial self evaluation revealed that a ratio of 80% devotion on current issues and 20% on future challenges represented only a *theoretical* proportion: managers in the strategic planning department focussed on day to day, any additional determination of strategic objectives for periods between 15 and 20 years was regarded as bureaucratic elements within the job description, not linked with the current internal assessments and generally unrealistic due to

the general conditions at the time of the study. De facto, the existence of any strategic planning beyond the imminent time span was thus limited.

In summary, it can be concluded that dynamic capability building, because rather than despite its focus on competitive survival, may only offer *one* appropriate pathway at one particular point of time which, following the identification through senior managers, may represent the basis for further analysis and action. Still, this pathway may only be approachable through establishment of managerial routines. In turn, these procedures need to be fully functional at all times in order to facilitate rapid decision making. Moreover, the fact that a chosen pathway's individual shelf life may be short and limited in high velocity environments may further complicate the issue. In other words, it may be inevitable to note in this context that validity of strategic decisions with regard to environmental fitness is not only temporary but fundamentally speculative in nature.

In this scenario, the following key insight emerged:

- Dynamic capability building itself may only be achievable in single organisational cases and not realistic for the majority of industry players
- This implies further, wide reaching consequences for the historical evolution and structure of companies in future conditions of further accelerated external dynamisms. It suggests that organisations may not be able to continue to exist in their original forms in the steel industry of the future but should be replaced by more fluid, responsive resource entities

Due to the level of abstraction and complexity of the issues described above, the "platform" utilisation practices of the automotive industry have been selected as a *purely illustrative* example to explain the mechanisms of dynamic capability building routines in the steel industry. Common procedures and particular platforms and basic modules and their constant model applications appeared most suitable for this purpose and have been selected to, *symbolically*, explain

the issue in simplified terms. Consider Volkswagen Group as an example for extensive platform utilisation.

Practical implications

Data from this study has shown that in the case of the DCV, so-called platforms may resemble basic resource stocks and are subsequently built upon through senior managerial routines and processes, acting as strategic input to previously established factors - if identified as such. Specific and continuous action may facilitate quick responses to changing circumstances and represents perhaps the most central element of the building exercise. On the other hand, in the car industry the variability of stocks and resource platforms allow for their application and transfer to a variety of models; depending on the respective customer market which in itself may be characterised by complete overhaul and renewal about every five years or so.

Conversely, in the context of dynamic capabilities building automatic transformation of external parameters over time points out the requirement to initiate re-configurations of existing material. Following from the analogy above and in awareness of the fairly intangible nature of these factors as opposed to the example of the car industry, senior managers are advised to employ existing resources and capabilities and their own analytical, situation specific evaluation as platforms for the building exercises only - subsequent challenges could potentially be of dissimilar nature and thus characterised by digressive routine requirements.

Furthermore, it becomes clear that even in the analogy of the car industry the strategic power of utilisation of joint platforms is naturally limited, both with regard to their validity over time and in more general terms: certain newly emerging customer demands may trigger the necessity to develop entirely new capability sets, which, due to particular future forecasts that affected their emergence, would be unlikely to always benefit from resource combinations through internally available knowledge capacities.

In this context, it is of crucial importance to note that, within the wider DCV context, new challenges not only derive from changes in the macro environment but, as discussed earlier, are subject to complexities which could possibly have their origins in industry players' dynamic capability building abilities themselves or respectively fluid change patterns of existing resource stocks within the industry.

Transferred to the steel industry, it becomes clear from participants' statements that changes of metallurgy processes represent major potential restrictions and barriers within the capability building process. This may be explained by the fact that managerial access to the platform elements within the exercise was somewhat characterised by complications in certain instances. For example, the case of external technology developments triggering changes to the metallurgy process. In other words, trivial tangible resource characteristics have the potential ability to negatively affect intangible capability development in the steel industry. In this scenario, negative consequences derive from the invariability and thus inflexibility of existing resource stocks. This is related to the processes characteristic for the metallurgical sector.

Theoretically, despite the role of resources as suitable groundwork for necessary re-configurations (Yung-Ching and Tsui-Hsu, 2006) and, due to logical reasons automatically implied managerial conduct of appropriate levels of external analysis within the scenario, the specific procedures would still be necessary for their implementation. They were hence acknowledged as necessary pre-conditions. *In reality*, however, this process was unlikely to generate intended results. The reasons for this disapproving evaluation are presented in the following. Technical and practical limitations may additionally block rapid responses in the context of the steel industry; or even prevent any such efforts altogether. In turn, any such incident acts as a major threat to competitive survival - because dynamic capability building is in fact rendered unrealistic in such individual cases.

M&A utilisation dynamic capability building

For the aforementioned factors, the following question arises: how can senior managers within the steel industry increase their scope for rapid decision making under conditions of fixed production processes? The managerial account in general and in particular the issue of M&A versus Greenfield investments emphasised time and cost factors as the major obstacle to the latter's regular incorporation into wider strategic objectives. Similarly, data analysis showed that M&A may not benefit the dynamic capability building exercise if regarded as short term solutions only - mainly due to challenges associated with target selection, the highlighted existence of difficulties to at least partly fulfil necessary pre-conditions and the complexity of resource integration. For this reason, this study suggests that, from the managerial perspective at the time of the research, the troika of major players in the Russian micro environment had no past experiences in dynamic capabilities and at the same time struggled to understand and meet the preliminary, basic requirements associated with preparation for any such endeavour in the short term future.

Under these considerations, the positive outlook on performance prospects within the industry as provided by participants must be questioned. Quite the opposite, the situation appeared, in overall terms, negative. Nevertheless, despite a general transition period, this particular evaluation demonstrates that competitive future survival of major Russian steel companies was not mainly threatened by industry evolution, speed of external changes or general macro environmental trends. Conversely, evidence suggested that the major challenge derived from the absence of potential for dynamic capability building, hence being located within the abilities of top managers and naturally associated with resource identification, maintenance and application for capability generation.

Additionally, the discussion outlined that distinctions between external and internal analysis within strategic management appeared to be increasingly artificial and obsolete in the context of the DCV. Although their occurrence for analytical purposes remained valuable, business realities and changes therein

not only continued to affect the outcome of such analysis but simultaneously changed the nature of managerial actions appropriate for strategic decision making.

Simplified, at the same rate as senior managerial tasks became more complex, they required more explicit and frequent acknowledgment of *both* macro and micro changes for modifications to the value chain. However, naturally, no extensions of the managerial control zone on external factors took place. To summarise this aspect, self evaluating analysis from the adopted perspective became more complicated *at the same time as* but not exclusively *because of* the emergence of high velocity environments.

CHAPTER 9: CRITICAL REFLECTION OF DCV MODELS FOR CAPABILITY DYNAMISATION

General evaluation

From a superficial perspective, the notion of dynamic capabilities may appear as the most obvious solution to present day organisational dilemmas due to its implied anticipation of and constant reaction to volatility and changes in the external environment. However, this viewpoint potentially encompasses a number of significant problems. Most importantly, the fact that practical limitations may not allow for the degrees of theoretical flexibility associated with such constant action. In other words, the flexibility required for continuous dynamic capability building can be challenged on two bases.

The first major questionable dimension deriving from the literature is the *logic* of full flexibility, if realised: Schreyögg and Kliesch-Eberl (2007:920) reinforce this specific aspect through their observation that "such improvised solutions cannot be anticipated because they are supposed to be new each time and thus there are no experiences that allow for properly assessing the effects of the new solutions".

As a result, capability building would be wrongly replaced by "ad-hoc problem solving", certainly not adding to the overall strategic pursuit and objectives. In addition, the current research adds a second dimension with regard to *feasibility* of flexible actions within applied contexts. The steel industry in particular acts as an example of a context which hinders managers in their strategy implementation. Quick resource modifications and subsequently realisation of major disruptions to existing procedures for capability deployment may simply not be realistic. This is partly related to the nature of steel production and technical and financial constraints as mentioned previously.

Existing frameworks as introduced in the literature review rest on the assumption that dynamic capabilities may only overcome their inherent paradoxical characteristics if organisational decision making adopts the

simultaneous provision of traditional capability building through employment of patterns and routines in combination with risk compensation based on extensive monitoring processes and environmental surveillance.

Nevertheless, it is questionable whether the role of dynamic capabilities should really be determined by such fundamental task division. According to literature consensus (Schreyögg and Kliesch-Eberl, 2007; Green *et al.*, 2008), mainly external scanning procedures would clarify authority of organisational building processes, at the same time, their existence would continue to affect any adjustments based on future forecast. Yet, this particular step would be unlikely to increase the flexibility but add further restrictions to managerial scope for decision making. In a nutshell, it does not seem fully logical to detach monitoring activities from routines within the DC concept.

Conversely, the DCV is, at least theoretically, highly dependent on monitoring. Despite the fact that its main focus should not, as clarified earlier, entirely lie on external changes. The control activities of managers may be blurred by too much focus on future signals.

Understanding of salient patterns and trends which are uncontrollable from the managerial perspective represent important yet very basic and frequent activities - they are fully demystified and constitute natural conditions - at least within unstable environments. Hence, they are *not* the core of the conceptual notion. In addition, awareness of their specific details may neither decrease nor compensate organisational risks because only realisation of suitable responses can possibly fulfil such - fairly ambitious - functions. On the other hand, the monitoring itself needs to be directed at the actual internal resource material, financial scope for resource modification and constant identification of ongoing, existing patterns for capability building in order to facilitate planning and execution of appropriate responses.

Nevertheless, data suggested that the outcome of such pursuits needs to be entirely open and is not primarily led by current or past capability patterns: it showed that ever changing validity of temporary definitions for threshold

capabilities affects the usage potential for existing resource material or routines for its utilisation. The appropriateness of established plans could, at least theoretically and in certain instances, be subject to considerable shifts. Hence, unlike the DCV body of knowledge as reviewed, the current study does not assume that managerial freedom to abandon certain established procedures may result in pure ad-hoc decision making.

In the realities of the steel industry, managerial constraints associated with resource material and its nature effectively represent barriers to radical moves towards any strategic direction. This observation has certain implications for dynamic capabilities. If the latter, on the conceptual level, are neither dominated by external signals nor by identification or observation thereof, but moreover may not contain the - at least abstract - possibility to fully abandon established pathways in certain instances, the following question emerges: what managerial abilities distinguish organisations within dynamic capabilities building processes?

With regard to this question, the following aspects require particular emphasis and are further described below. Environmental scanning procedures are inevitable because their absence blocks internal responsiveness. For this reason, this research does not imply that the importance of macro environmental analysis is diminished, but it criticises overrating of its importance for processes of capability building in dynamic industry contexts. Too much emphasis on such factors may misguide decision making processes because they could possibly result in strategic choices which are difficult or impossible to subsequently implement.

This is a paradox in itself because it implies the opposite of desired effects associated with scanning procedures. Instead, the bulk of monitoring should be constantly evaluated on the basis of the uncertainty of how external changes may transform the strategic power of internal resource material and respective configurations. Simply put, managers will continue to predict future developments relevant for the industry and the players therein, but at the same

time they should realise that the most important action deriving from the task itself is identification of the *ideal* pathway.

This, however, needs to be complemented by realistic assessments of organisational potential for approaches towards the latter. Even if not possible to convert at all, this knowledge alone may help to differentiate steel companies from major competitors who, despite their possible possession of financial, tangible or intangible capacities for respective initiation of implementation procedures, may nonetheless fail to do so due to their lack of understanding of contemporary and hence only temporarily valid forms of trend manifestations and respective pathways.

Thus, only those players who fully comprehend the constantly changing, complex interactions and relations between internal factors and external transitions, may be in strong enough positions to critically evaluate the role of existing capabilities and the routines necessary for their maintenance. Therefore, the practical importance of both established patterns within and changes external to business organisations appears somehow overvalued and may distract from control of more resource stocks and their maintenance as introduced earlier. Moreover, the concept of dynamic capabilities may not contribute towards flexibility at all, but should be guided by dissimilar targets which are further explored below.

Risk minimisation through DCV tools

To investigate this issue, however, it is important to understand the nature of "risks" for established capability patterns within the concept of dynamic capabilities. According to "traditional" DCV theories, the managerial lens will determine whether observed signals from external factors are strong enough to be perceived as threats towards the validity of ongoing capability building. Still, it may be questionable to assume that, from the senior level perspective concerned with competitive survival, threats mainly arise from potential external forces resulting in the requirement to abandon ongoing and exercised routines.

Is it not more plausible to regard routines themselves and their strong influence on decision making as the major factor responsible for decreased scope for rapid decision making?

In other words, if, due to logical considerations as outlined above, external scanning merely represents a common procedure and is unlikely to represent single causes for initiated modifications to or factors pushing towards complete removal of building activities, more relevant issues for the overall exercise may be found in other areas.

This conclusion bears certain implications for the notion of risk. Following this line of argument, the managerial challenge in this context may not be the balance between responses to external signals and continuation of existing problem-solving architecture. Despite determination of time spans for external analysis and subsequent incorporation of respective trends into planning activities, it is necessary to emancipate the firm's future pathway from the dominance of this double-edged blade.

Other factors are ultimately responsible for risk minimisation. Specifically, managerial abilities to monitor and *evaluate* resource stocks and their currency in situational contexts. Automatically, this process is dependent on acknowledgment of the macro environment, because the latter is likely to erode strategic, although non-measurable, value of available resources over time. In terms of an analogy, inflation represents a somewhat common element of today's major economies, but its damage can be minimised through constant monitoring activities and frequent small scale adjustments.

Yet, as part of this example, its impact on every day decisions must be regarded generally rather limited for individual parties within complex systems - as long as they are aware of the basic parameters, future direction, and pace of changes and thus the operating spheres and boundaries of their daily business. This position does not deny the possibility of more revolutionary, sudden changes which nevertheless rarely appear without early, detectable signs.

To summarise this section, this thesis and its evolution clearly demonstrates that managerial freedom to move away from established capability building patterns is quite restricted in the steel industry and therefore does not represent a matter of strategic choice as indicated through the existing body of literature. The main threat to flexibility derives from feasibility constraints senior levels of respective organisations are likely to be faced with. As a result, the most plausible hazards are likely to root from powerful path dependencies and inappropriately high foci on external progress.

Paradoxically, this particular finding became only visible through evaluation of data in comparison with the existing theoretical knowledge and not from data discussion as an isolated unit. Also, it retrospectively legitimises participants' relatively limited attention to the macro environment, to a certain degree. Nonetheless, this procedure represents perhaps more of a logical move in purely strategic terms than initial review of the conceptual notion would imply. Still, evidence supports the position that the role of path dependencies may occupy a central and perhaps negative role within the wider context of full understanding of theoretical schisms, contradictions and limitations characteristic for the DCV to date.

Fluctuation control and resource maintenance

Earlier, it was described how the DCV can ideally be focussed on identification of *one* pathway suitable at one particular point in time and space. It is very important to explore how dynamic capabilities may be defined under conditions of prevailing capability structures which can not be deserted altogether. This is the case, despite the fact that this option may hypothetically appear as the most logical from managerial angles in circumstances of simultaneously weak influences of external signals on daily risk levels and assessments.

Perhaps the most obvious explanation is that dynamic capabilities are more abstract than previous research suggests. Their practical invisibility draws its origin mainly from the fact that any additional value does not derive from the

departure from existing building processes, which, at least in the steel industry, is not fully realistic, and the renewal itself, mainly through innovation, is unlikely to take place to the extent previous publications (Helfat and Peteraf, 2003; Teece, 2007; Lillis and Lane, 2007; Pitelis and Verbeke, 2007) have tended to suggest in the past. Renewal may only take place if its feasibility is given.

However, this seems unrealistic because of steel industry characteristics as earlier discussed. For this reason, within the industry context under investigation, dynamic capabilities building processes as central managerial tasks merely represent efforts towards possession, readiness and maintenance of *appropriate* resource material with selection of time spans for future forecast and additional identification of basic, broad trends as the only, overall relatively weak variable contributed from the far environment.

In other words, when the dynamic capabilities view in strategy first emerged more than a decade ago, subsequent research to date as reflected in the papers surveyed for this thesis, focussed perhaps too much on the renewal aspects in causal connection with high velocity environments. Due to the fact that dynamisms are one of many elements rather than *the* striking feature of today's business realities, it may be necessary to accept the fact that the conceptual contribution of dynamic capabilities needs to move away from this particular locus of attention in order to provide more direct benefits for practitioners. As previously discussed, the dynamics purely derive from case-to-case managerial evaluation.

It is subject to their specific judgment of individually gathered data which highlights the day to day status of the objects of observation. Despite the existence of this ever changing, fluid entity which acts as the basis for problem-solving attempts, decision making still remains within the managerial domain. Parameters which guide the strategic process in this context consist of the following broad categories of elements further summarised below:

- Fluctuations in resource value
- Fluctuations in impact of external factors
- Determination of time frames which affect the resource maintenance activities and the speed of resource "depreciation"

The importance of these variables is particularly remarkable given the above described ties of capability building structures acting as practical limitations to practitioners' analytical power in the steel industry. In other words, the adjective "dynamic" in DC describes these variables and the boardroom's task to understand them and their constant evolution in order to guide decision making.

All three elements listed above include stable entities as part of the strategic process which is both naturally and traditionally acknowledged in capability building. Adding to this, within the steel industry, managerial foci need to be shifted from simple acknowledgment of their existence towards more explicit understanding of their fluid dynamic movements; yet nevertheless somehow explicitly detached from the automatic assumption of full renewal. Thus far, existing models within the DCV appear to fail to acknowledge these priorities. This might be due to the fact that further contextual applications are required which are likely to add practical value for senior managers.

Thus, whereas the importance of monitoring activities is confirmed through this particular research as presented within the thesis, it comes to a different conclusion regarding the roles of path dependencies, the status of external observation and the outcome of the overall process. It is important to re-emphasise that competitive advantage is unlikely to derive from the exercise. The managerial knowledge to accept the described aspects as major influential factors for decision making allows business organisations to maintain more suitable resource materials which may then be applied to a variety of challenges or contextual problems.

Consequently, dynamic capabilities in rapidly changing environments can not possibly replace resources through renewal. As such, it is important to recognise

that logical progression of the DCV from the RBV merely constitutes provision of further orientation to managers to be able to analyse, modify and maintain capabilities.

In simplified terms, the DCV as such is not a completely new concept; the only difference is that the majority of micro environments in general and the steel industry in particular have considerably changed over the past ten years or so as the most visible indicator of ongoing transitions. If external parameters have changed, certain misfits between resource material and the former naturally emerge. For managers, therefore, to be able to continue to make use of their own internal resources and respective deployments, they have to think about new ways to maintain resource stocks. The role of the DCV is simply to highlight factors which need to be monitored on a continuous basis in order to do so.

In the future, it might not be companies with the most suitable resources who are able to distinguish themselves and to survive under difficult conditions, but those organisations which have the benefit of managerial knowledge on the "real" position in the competitive environment-based on assessment of such flux variables in comparison with the identified single available future path. However, this position is not static, thus creating an urgent requirement to develop and establish new routine patterns which exclusively focus on these tasks. From a logical point of view, its execution would be the responsibility of the highest leadership levels of steel players. This is due to the direct connections with decision making. Any decision made on the strategic level which fails to acknowledge these issues, is likely to fall short of organisational objectives and thus erode its own contribution.

A final evaluation is provided in the following section which summarises the new dimension data has added to the existing body of knowledge in the area. Although this study accepts the inherent paradox of dynamic capabilities, it rejects their assumed high impact based on the following observations.

- The existence of steel industry-specific practical rigidities which somewhat counteract the dominance or unpredictability of external environments for *all* major players therein
- The identified specific role and influence of fluctuations as described in detail
- The implications for senior managers and strategic leadership
- The consequential revised status and objectives of dynamic capabilities within the wider discipline of strategy

Nevertheless, in order to understand if this particular critique of dynamic capabilities theory derived from data generation from the steel sector similarly applies to other industries or contexts, more research is required which is outside of this study.

Path dependencies within the wider DC framework

Both the discussion and evaluation of data thus far has shown that the specific role of path dependencies is a critical yet highly controversial and potentially contradictory one within the wider dynamic capabilities framework. Traditional DCV concepts emphasised incorporation of existing routine patterns into building exercises. Nonetheless the presented data has clearly demonstrated that, within the steel industry, the two are perhaps less of the ideal than a scenario forced by situational factors.

For example, the managerial account made it explicit that path dependencies potentially restrict the exercise because established strategic routines for capability utilisation are the only available options as the impact of cost factors and industry characteristics prevails. Within the RBV, path dependencies were described as sources of costly imitation and thus somewhat related to achievement of competitive advantage. The following sections represent attempts to identify new insights on their specific impact through transfer of collected data on the DCV context, mainly to clarify whether they act as

effective counter forces to dynamisms - both in relation to endogenous and exogenous factors.

Green *et al.* (2008:76), in their recent application of theories originally developed by Teece *et al.* (1997) on the construction sector describe findings which are at least partly based on a relatively similar methodical approach of data collection and analysis as the one presented within this thesis.

Accordingly, "on the basis of the evidence collected, the strategic choices available to firms are heavily shaped by the path along which they have travelled". Although the case study of dynamic capability building for this study focussed on the relatively different steel industry, it supports the observations above to a certain extent. Still, it perhaps adds a different perspective with regard to the *evaluation* of this phenomenon. This is explained in more detail in the following.

Green *et al.* (2008) conclude that the issue of path dependency deserves a much stronger emphasis. Still, because no explanation for this specific statement is included, the question arises whether such action would supplement to the practical use of dynamic capabilities in general terms. To approach the problem, it is necessary to understand that the main implications of dominant paths are likely to be reflected in restrictions of managerial decision making and capability building power, for the reasons aforementioned in previous sections.

Hence, in abstract terms, any more detailed understanding of these forces does little to diminish their specific, negative effect on scope for routine modifications and resource maintenance. As a result, the purpose of the exercise in the first place remains diffuse. It may be more relevant to further explore strategies to increase managerial abilities to, in analytical terms, "free" themselves from path dependent burden and thus facilitate more control on the entire process. This particular finding appears not to be sufficiently acknowledged in existing papers and DC applications as reviewed (e.g. Oliver and Holzinger, 2008; Lee and Kelley, 2008).

Also, DCV knowledge reinforced the earlier included observation that, over the last decade and ongoing, research on dynamic capabilities tended to mainly define its focal point of enquiry as competitiveness. Despite the relative commonality of this particular occurrence, the factual absence of presented evidence for justification of this approach within the existing body of knowledge is remarkable. This observation is further enhanced by logical considerations which both render this focus somehow inappropriate and simultaneously imply simple transfer of past objectives of strategy research on the DCV. In addition, it remains unclear how, if necessary, such targets could possibly be achieved in practical terms.

The case study central to this doctoral thesis supports the assumption that dynamic capabilities are arguably unlikely to provide managerial guidance for achievement of competitive advantage. This is due to a variety of reasons, but mainly because data discussion has demonstrated that the process may not be open to the entire industry and even established major players in the steel sector are challenged by the complexities of the concept and its implementation.

Perhaps the most obvious contribution deriving from the exploration of the steel industry represents the departure from existing theories with regard to evaluation of certain context-specific activities, triggered by partly dissimilar nature, purpose and specific details. The present study therefore suggests that the main function of efforts from academic communities in strategy in general and the DCV in particular should approach ways to decrease complexities and oscillation of factors which are subject to fluctuation tendencies.

In other words, it is important to explain the high number of potential dependencies which may exist, exemplified by the following three broad points of orientation.

- Total resource stocks of the industry
- Individual resources available to competitors
- Abstract, yet somewhat plausible causal effects on temporary values of firm-specific resource material and earlier described fluctuations thereof.

Naturally, the units of measure need to be defined by acknowledgment of subsequent potential for capability configuration in relation to external dynamism. In turn, this potential is nonetheless, yet somehow arguably, affected by managerial skills to execute respective exercises and frequent, modified repetitions through simultaneous attempts to, at least partly, minimise repercussions from path dependencies. In addition to these content related challenges, future research should aim to explore how these objectives may be transferred on applicable and relevant guidance for responsible individuals at the senior level. As a result, advances in knowledge on both process and content levels could be pooled under the umbrella of dynamic capabilities, further adding to the logical progression of the strategy field.

This concludes Part 3 of the thesis. Although Chapter Nine has discussed the DCV in great detail, it is important to note that Chapter 6-8 contributed to these insights respectively. The following final chapter of this thesis outlines key findings, the major contribution and limitations of the study.

CHAPTER 10: KEY FINDINGS, CONTRIBUTION, LIMITATIONS & SUGGESTIONS FOR FUTURE RESEARCH

10.1 Introduction

A recent academic contribution by Furrer *et al.* (2008:16) came, after an extensive analysis of structure and evolution of strategic management, to the following conclusion.

> The resource-based theory of the firm needs to move from a static view of existing stocks of resources, towards an appreciation of innovation and renewal implied by 'dynamic capabilities' [...] this also corresponds to the direction of the evolution of the field we identified in our analysis [...] recently, we can begin to identify a more balanced view involving the integration between the different academic influences on the field of strategic management, and we shall probably see a strengthening of this integrative trend over the next several years".

The presented doctoral study has provided evidence which confirmed the wider rationale of the DCV. In particular, an evolution of strategy towards more explicit incorporation of dynamic processes, in relation to external factors as well as internal resource configurations emerged both from the literature survey in Part 1 as a general tendency as well as an emerging theme from discussion of collected data in Part 3.

In addition, the research represents a robust attempt to address the "black box" of the DCV, the actual dynamic capability building processes in practice, and to explore the managerial and thus practitioners' angle on the issue as well as major implications of the exercise for strategic planning in general. Its original contribution derives from the fact that neither similar studies for the steel sector have previously been conducted nor related contexts been subject to in-depth examination. This is put into the wider context of disciplinary research and further explained below.

10.2 Key Findings

In the following a summary of findings is presented. Key insights emerged from theme-based investigation based on described coding procedures and

subsequent in-depth evaluation. Collected data, their coding, analysis and critical evaluation following the rationale of the study has generated a number of issues relevant for the complex exercise of dynamic capability building in the steel industry and the M&A process. A concise list of these categories of findings and their content is included for clarity purposes:

The managerial perspective

- Despite managerial failure to conduct appropriate levels of external analysis, the existence of learning processes through both observation and imitation of the world steel industry materialised
- Managers described dynamic resources as being characterised by and subject to continuous configurations and combinations, they were *not* directly linked with high velocity environments
- Major difficulties within existing resource combination procedures from managerial angles was identification of suitable material for capability building; furthermore, no active attempts were made to connect such established internal processes with external realities and dynamic trends therein
- Dynamic capability building exercises rely on effective strategic leadership
- Uniqueness of resource material was not determined by content or specifics but by individual participants' input and decision making based on identification of *one* pathway option appropriate at the time of managerial analysis - and the frequent repetition of this procedure loosely guided by gradual drifts in the external environments

Resource material and complexity

- *Intangible* resources represented perhaps the most important material for respective building exercises due to their more explicit links with competitive survival - measured by theoretically higher potential for re-combinations and configurations

- Uniqueness of newly configured resources mainly derived from internal "optimisation" processes rather than from linkages with external dynamisms and anticipation thereof
- Decision making speed and hence potential for dynamic capability building activities in the steel industry was highly reliant on scope for financial investments; resource configuration efforts were somewhat dependent on the constant and monitored availability of both tangible and intangible resource material
- Resource combination activities of main competitors were a substantial contributor to the *complexity* of the exercise due to the constantly changing nature of threshold resources for competitive survival; this particular finding demonstrated that the assumed impact of external changes in this context was perhaps somewhat overrated in the past; the theoretical possibility of new entrants to the world steel industry considerably enhanced this effect

The role of the M&A process

- Past M&A deals in the Russian steel industry were mainly conducted detached from connections with specific strategic objectives - major motives were rapid growth and existence of favourable fundraising opportunities
- The importance and role of steel industry screening processes in the pre-acquisition period for dynamic capabilities building was relatively low due to the above described prevalence of complexities and problems associated with target selection and resource identification; on the other hand, the long time span of post-merger integration attempts rendered M&A factually not suitable for development of DC - because the latter are characteristically short lived

- The M&A process occupied a limited role for the dynamic capabilities building exercises themselves but nevertheless displayed secondary links because it affected competitive survival indirectly as an effective prevention against hostile takeover attempts - if regarded from the managerial perspective of study participants based in the Russian Federation
- Import of intangible knowledge through foreign acquisitions and subsequent integration of R&D units, for example, was likely to be insufficient and of limited value for the wider exercise mainly due to compatibility based, context-related issues; similarly, evidence suggested that the role of R&D contributions was additionally relatively low in general - both for the purposes of cost efficiency achievements, resource renewal and maintenance

Dynamic capability building

- Dynamic capability building is generally a loose connection of very complex tasks in the steel industry - both their industry compatibility and feasibility may not be automatically given and should be investigated in individual cases
- A major pre-condition of the dynamic capability building exercise is the theoretical availability of decision making speed; in itself subject to a number of critical factors as emphasised below
- Dynamic capabilities required continuous action and had their locus in daily managerial routines rather than being linked with sophisticated managerial thought processes characterised by extended development and implementation phases
- Continuous future forecast constituted more of a pre-condition to dynamic capability building efforts than direct element of the latter; simultaneously, embarkation on these complex processes required preliminary managerial awareness of their importance - detached from current financial evaluations and somewhat contradictory to the key performance indicators in certain instances

- Managerial input to the exercise mainly constituted identification of temporarily valid definitions of "threshold" and subsequent building, control and monitoring of respective resource stocks
- In concrete terms, the first stage within the dynamic capability building exercise represented the managerial action to identify situation specific appropriate time frames for the scope of external future forecasts
- Despite the particular activities mentioned above, the *major* managerial input in this context consisted of establishment and running of daily routines associated with identification, establishment of access to and modification of resource material relevant for the exercise

Practical limitations to DCV application

- In the steel industry, characteristics of the metallurgy production processes of physical nature may block dynamic capability building on the whole; mainly due to time factors and inflexibility of respective processes
- Due to its complexity and the theoretical procedures as described above, dynamic capabilities may only be achievable in single cases - accordingly, competitive survival in high velocity environments and simultaneous efforts of industry players to achieve this may be difficult to realise through traditional organisational structures
- Internal processes were of higher importance for DCV-related application than focus on external changes. In other words, data suggested that despite the latter's highlighted role, the majority of dynamisms are ideally be found within internal strategic practices

10.3 Summary of Contribution

Perhaps one of the most central elements of the overall research process was the development of the earlier introduced two overarching research questions. Importantly, reference to the dynamic capabilities building refers to **managerial actions** related to the exercise:

- **What constitutes dynamic capabilities building and how can it be planned, implemented and monitored in the particular business realities of the Russian steel industry?**
- **Do M&A activities affect dynamic capabilities building within the steel industry setting?**

Moreover, the earlier included literature review tentatively suggested a number of "a priori propositions" to facilitate closer examination of the overarching research questions.

1. The DCV represents a logical theoretical development and further highlights RBV myopia concerning existence and achievement of sustainable competitive advantage in today's business contexts
2. Dynamic capabilities analysis and respective building efforts may represent threshold capabilities within individual industries. They are complex, case- or industry-specific and, in terms of purpose and objectives, diverge from achievement of competitive advantage
3. Dynamic capability building is principally an organic exercise but "intelligent" M&A activities may provide capability building modules and access to resource bases which could theoretically accelerate or facilitate the process

The first two points on the list above are issues which are subject to future research and evaluation over time. Nonetheless, the application to the steel industry has clearly shown that the importance of sustainable competitive advantage as the so-called "holy grail" of strategic management is questionable within certain contexts. With regard to proposition three, little evidence has been found to support this assumption. This is mainly due to the practical and time related difficulties associated with short term exploitation of M&A. Nevertheless, further research may be required to explore the long term effects of M&A on dynamic capability building potential.

Also, dynamic capability building processes were earlier defined as consistent, continuous and demanding procedures which, related to their natural complexity, principally provide barriers to observation and imitation by competitors.

This literature based view needs to be complemented by additional insights. Perhaps more than any other activities within steel organisations, the

characteristics of context-related processes themselves may represent insurmountable obstacles for their implementation by senior managers. The latter are hence likely to become victims of their own limits, both in analytical and practical terms, rather than being threatened by competitors' imminent strategic actions. This statement leads to a concise summary of the main contribution.

- A certain departure from established principles of the DCV emerged. The existing body of knowledge assumed risk minimisation via establishment of extensive monitoring activities of external changes in combination with capability optimisation through renewal efforts. However, the example of the steel sector has shown that both **dynamisms and complexity of the exercise mainly derive from internal factors rather than external changes**. In itself, this represents a divergence from DCV purpose and direction.
- A key finding was identification of practical obstacles to dynamic capability building associated with the explained negative role of industry-specific path dependencies, questioning the appropriateness of focus on renewal aspects as emphasised in more traditional theory. In other words, **renewal, per se, is extremely difficult to implement within certain industries**, therefore the locus of attention needs to be re-defined and shifted towards other factors as described below.

The *major contribution* of the thesis is the following:

- Managerial development of **a framework (diagram below) for fluctuation control of resource value, impact of exogenous dynamics in combination with determination of contemporary valid time frames for future forecast** could potentially increase timely and full exploitation of available resource material

- The practical value derives from the nature of the problem. As such, ***awareness*** of the factors mentioned above may guide managerial establishment of respective strategic routines and thus outlines how elements of the building exercise should ultimately influence strategy formulation *and* implementation - rendering distinctions between the two elements of the strategic process somewhat obsolete.
- Another contribution concerns the role of mergers and acquisition for dynamic capabilities. Affected by the requirement of rapid decision making and strategic responses to continuous flux, **M&A importance for the process needs to be regarded as relatively low - mainly due to decreased flexibility and the long term integration approaches required for implementation of this particular method of external growth**

Figure 6 below shows the three main categories of blockages to managerial routine development for dynamic capability building based on empirical findings in the steel sector. The inherent paradoxical characteristic of dynamic capabilities in the literature was to focus on complete renewal of resource material. Still, dynamic capabilities cannot be built by imitation (Miller *et al.*, 2002). If problem-solving abilities are only called capabilities if firms are able to reproduce them, then reliability of organisational routines through repetition somewhat contradicts the basic notion of dynamic renewal.

The current study addresses this central paradox and shows that only three main phases of DC activities as identified in Figure 6 may be subject to complete and frequent renewal, i.e. the routines themselves which lie within managerial control. Phase 1 came out of existing literature whereas phase II and III emerged from the doctoral research. The phases represent the individual optimisation processes which are unique to firms and managerial abilities. They are part of the routine level and can be modified.

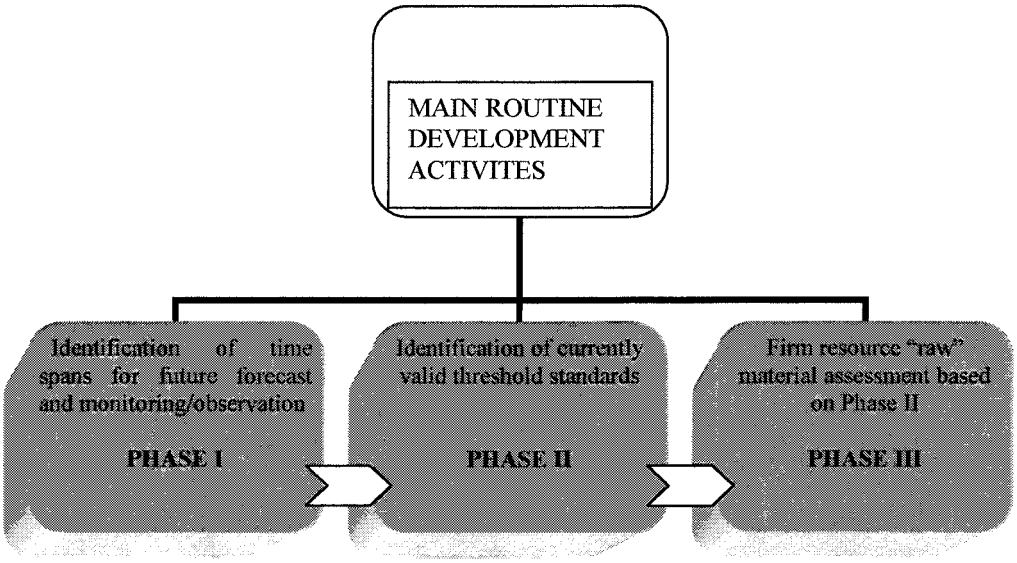
On the other hand, resource raw material or existing resource stocks may not be subject to complete renewal. Any transformation on this level is likely to constitute more of a gradual process which is furthermore constrained by both

technological and financial factors as clarified earlier. Hence the routines only facilitate full use of resource material, from the managerial perspective.

In other words, two main elements of the overall exercise exist. Managers can create and modify routines. The outcome of this process is dependent on "current fit" with resource material. Because of continuous resource value "depreciation" in relation to threshold standards, any managerial routine patterns face substantial shifts to accommodate respective fluctuations. Hence a requirement for routine renewal is naturally given in order to maximise use of available resource material. Figure 6 thus illustrates the major finding from this study.

Finally, the paradox of dynamic capabilities may not be one after all, as commonalities across firms continue to exist. This thesis shows that they may be found on a different level than existing literature assumed. All industry players are likely to evaluate their resource raw material based on adherence to the same, only temporarily valid, threshold standards. For this reason the study suggests that the renewal concept only affects the routine level within the wider DC framework. In addition, it demonstrates that too much focus on external monitoring may distract from the main stumbling blocks or blockages as added to Figure 6. However, it is important to note that the complexity of business reality may not always allow for *sequential* implementation of respective phases and their subsequent incorporation into managerial routines. Instead awareness of their hierarchical status within the overall building exercise may represent the major benefit from the practitioners' perspective.

Figure 6 Suggested Framework for DC Building in the Steel Industry[29]



BLOCKAGES

- Continuous fluctuations of competitors' access to resource raw material and combination activities
- Powerful path dependencies
- Feasibility constraints

OUTCOME

DC building and valid use of resource raw material[30] through managerial routines

[29] Based on empirical work

[30] Basic resource stocks of raw materials represent the resource level. At this dimension, renewal is unrealistic; nevertheless continuous value depreciation takes place. This is due to three factors: external dynamics; flux of N resource material in the entire industry and respective fluctuations in threshold minimum standards in relation to the former

The study concludes that, logically, **the purpose of dynamic capabilities is not aimed at generation of competitive advantage but assistance with organisational survival within certain contexts**. Simultaneously, however, it accepts the insight that dynamic capabilities building processes alone may not necessarily provide sufficient momentum to achieve this. Understanding of complexities and development of appropriate responses incorporated into routines and processes may nevertheless help to reduce the uncertainties of recurring strategic challenges in individual instances.

10.4 Limitations

With regard to the central research questions, the following broad limitations may be identified. The study has clarified what dynamic capabilities constitute within the steel industry and what elements refer to the actual building processes and their planning. Nevertheless, *implementation* of the exercise is perhaps not yet sufficiently explored, further explained in section 10.5.

Second, the presented case study was industry-based and single-case in nature, hence the relatively narrow nature of the main unit of analysis may not allow for wider generalisation across industries or the field of strategy as a whole. All the same, it is important to note that this restricted focus was consciously selected and seen as a simultaneous strength: it addresses a major criticism of contemporary literature which often aims to develop "universal recipes" for strategic success of business organisations.

Furthermore, the theoretical focus may be criticised with regard to M&A. Throughout the research process, it emerged that, even from the strategic perspective alone, the issue is considerably complex and may not automatically provide insights for dynamic capability building exercises. It was perhaps underestimated that, similar to the tip of icebergs, mergers and acquisitions carry somewhat hidden long term and perhaps time lagged implications and thus may require adapted academic efforts aimed at longer periods of observation. Still, pure knowledge of potential difficulties for managers in their daily steel realities may be seen as a notable finding and thus somewhat justify the

inclusion of these aspects within the wider thesis. Nevertheless, the specific problems mentioned above demonstrate that future investigations are necessary, further outlined in the following section.

10.5 Suggestions for Future Research

Despite the relative lack of knowledge accumulation on building processes within the DCV as a legitimate claim, it is conceivably of equal importance to emphasise that academic communities need to embrace the following reality: unlike certain sub areas within the RBV which have been subject to often artificial model building activities characterised by simplification and omission of business realities even most recently, dynamic capabilities are very complex in nature. Notwithstanding evidence for repeated attempts to continue respective strategy research patterns of the past which are aimed at quick generation of universal formulas for competitiveness, considerable longer term approaches, consensus regarding its terminology and purpose may represent preliminary requirements for further maturity of the field.

Consequently, the DCV would receive wider acceptability among senior managers in the future if clarity existed on its main objectives and purpose. Data and responses from participants resulting in the emergence of broad sub themes indirectly demonstrated that, thus far and within the boundaries of the steel industry, this may still not sufficiently be the case. Future research should investigate this through further tests. Only accumulation of a database of knowledge on industry application of dynamic capabilities building may result in development of more holistic frameworks - which can then be compared with insights from other research areas within strategy and clarify the latter's evolution.

A further promising avenue for studies to come may be associated with choice of alternative, complementing research methods. In particular *participant observation* of senior managers could possibly and more explicitly highlight practical difficulties emerging from dynamic capability building processes in business practice and emphasise solutions for routine development which are

unlikely to emerge from narrative accounts alone. Again, these efforts shall explicitly emphasise and acknowledge potentially dissimilar conditions across industries.

Ultimately, deeper understanding of dynamic capabilities frameworks and industry-specific building exercises but also their limitations is likely to serve an important purpose towards further maturity and acceptance of the strategy discipline.

APPENDICES

Appendix A Informed consent form

Newcastle Business School
Informed Consent Form for research participants

Title of Study	
Person(s) conducting the research	
Programme of study	
Address of the researcher for correspondence	
Telephone	
E-mail	
Description of the broad nature of the research	
Description of the involvement expected of participants including the broad nature of questions to be answered or events to be observed or activities to be undertaken, and the expected time commitment	

Information obtained in this study, including this consent form, will be kept strictly confidential (i.e. will not be passed to others) and anonymous (i.e. individuals and organisations will not be identified *unless this is expressly excluded in the details given above*).

Data obtained through this research may be reproduced and published in a variety of forms and for a variety of audiences related to the broad nature of the research detailed above. It will not be used for purposes other than those outlined above without your permission.

Participation is entirely voluntary and participants may withdraw at any time.

By signing this consent form, you are indicating that you fully understand the above information and agree to participate in this study on the basis of the above information.

Participant's signature **Date**

Student's signature **Date**

Appendix B Revised interview schedule Company X[1]

A Background and previous work experience

Could you please outline your background within Company X? How long have you been employed in your organisation? Have you had any previous work experiences in other business organisations?

B Industry characteristics and external analysis

- How would you describe the Russian steel industry of 2007 in general? What are the main characteristics?
- How dynamic is this industry? How has it changed over the last five years or so and what are the implications of this change for you and your organisation?
- How competitive is the steel industry of 2007? In your opinion, who are the biggest players within the boundaries of this industry? What are their distinctive characteristics?
- How would you describe the general impact of macro environmental changes on the steel industry? How can a business organisation in the steel industry anticipate such future-related trends and changes? How do these changes and dynamics affect the managerial processes within your organisation? How have such factors changed the industry in the past? How are they going to change it in the future? In five years time, what will be the major differences to the Russian steel industry of today?

C Internal analysis Company X

In your opinion and from your experience within the organisation, how would you describe the internal major strengths and competencies of Company X? How are they related to existing resource pools, both tangible and intangible, within the organisation? Could you please describe these resources?

D Dynamic capability building

- In increasingly dynamic environments, how can resources contribute to organisational success?
- What exactly are the elements or procedures required to develop, apply and monitor processes associated with resource deployment in the Russian steel industry? In other words, how can existing resource pools be transformed into a basis for competitive survival if the basic parameters are changing all the time, triggered by changes in the dynamic business realities of the world?
- How do you make sure your [or the actions of the strategic planning department] actions are taking dynamic, external changes sufficiently into consideration?

E Mergers and acquisitions (M&A)

- According to the literature, 70-80% of all mergers and acquisitions fail. What factors do you think contribute to the success or failure of M&A from your experience?
- How would you describe the screening processes for potential target companies within the steel industry? How can compatibility of resources or resource bundles be ensured? How important is resource compatibility for the selection of potential target firms?

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[1] Only to be referred to as a very broad structure of the conversation with the "informant" rather than as a prescriptive tool.

Appendix C Typical interview transcript

VV-I/CV-I 11/06/2007

Audio file: 50 minutes

First question, could you please outline your background within the Russian steel industry?

VV-I: I'm working for the steel industry since 2002, for, I think, almost five years, since my initial employment in steel. Now I work in the strategic planning department, I was involved in joint venture projects and right now I am working for strategic response group and in charge of preparation and forecast of financial data.

CV-I: For me, I came to the company in 2000, started as a simple worker in converter shop, became a master after one year, and have been managing the technological processes after two years. Then I moved to the technological department, stayed there seven months and after that I joined the commercial directorate as a specialist of purchase and import. I'm still working there.

What are the main characteristics of the Russian steel industry in 2007?

VV-I: Okay, highly profitable. All steel companies in Russia impressed through IPO processes; and they are owned by exec persons. Then, I think, concentration on domestic markets, while all of them take mergers, not mergers, I think acquisitions would be a more suitable word, abroad. But those acquisitions, not from my point of view, the strategic point of view, but from a financial point of view, cost more. [Interviewee comment: under this phrase I imply that I think that aforementioned acquisitions follow financial target (to buy cheap/undervalued assets) than strategy target]

CV-I: Yes, for me, I think it's a really fast developing industry. Actually I can also say that it is highly profitable and I think that European companies or even global companies are afraid of the Russian steel industry.

How would you characterise the main differences between the Russian and the world steel industry?

VV-I: From my point of view, we still have a big impact of the state upon the industry. I think that's the main difference. At the moment, we are...you know, and also I think there are not optimal business processes in place in steel at the moment. Because in terms of equipment we are buying new equipment, you know German one and Japanese mills. But in steel we have two small outputs per person in comparison with best companies in industry. I think that's because of some heritage of the former Soviet Union. It's erased step by step but still, that's not were we are the champions. However, also, if we think about the old metallurgical industry, only Russian and Indian companies are owned by only one exec person. European, Brazilian and of course companies from the United States of America are owned by a number of shareholders and that's why managers have to justify their decisions and therefore

decisions are often only for shareholders. In Russia, managers are just doing their job and following decisions of one person.

CV-I: We have to compare the Russian and the world industry: for me I think that in the Russian metallurgical industry, the majority has Soviet Union policies or had Soviet Union policies. And there was very slow development of the companies. Only now there are possibilities to take part in world markets of the steel industry. And also there were different standards of steel, a different quality was for example preferred by domestic markets, and actually all Russian companies have been working only for domestic markets. Then, I can also state that Company X was one of the first companies which tried to sell steel to different countries, not only in Russia. And now, only now, I think that there is something like a world industry from the Russian perspective. But of course we also have to pay attention to salaries that are different. That is because the attitude to the job is very different: that is why it is very difficult for top managers to attract a great amount of people in cross-functional teams for development of the industry as a whole. That's it, I think.

You (VV-I) mentioned that in Russia one person can possibly control a company…

VV-I: That's how we are usually doing business at the moment in metallurgy.

How does it affect processes associated with strategy-making within the strategy department?

VV-I: You know, at the moment the strategic department is more associated with calculation issues. So there are several options that emerge for the owner and the group of top managers, based on their expertise and so on. But they can't calculate everything, you know, files, numbers that will be changed if we go there or in another direction. So they generate the ideas. And the strategic planning department is calculating these ideas, taking into account changes in prices, logistics, purchasing, and production, including repairing because in metallurgy repairs are very timely processes and we have to shut down some other upstream or downstream facilities to make processes flow. So sometimes, what the strategy department is really doing is saying: "this option seems to be very unprofitable. We will never get our money back or we'll have to wait for ten years. And this one is good based on some assumptions". So I think that's the area. And of course, you know, I'm speaking from the position of managers so, for example, senior managers and of course director, I think more the director than senior managers is participating in general strategic processes. So, you know, brainstorming options, where we should go and so on. But of course not every single manager or specialist is integrated. That's the main direction for our department. But there are some supplementary directions for strategic planning department: like, you know, controlling of business processes and dealing with joint ventures. That's because, I think, historically that are the tasks of our department. And they are not connected at any point with each other, it's not sales, it's not HR, but still somebody has to do it so we are doing this stuff that is not restricted by some basic area of conducting [means business area].

CV-I: I think after privatisation the development was going really fast. Now there is one man who is responsible for everything. And he is responsible for the profits. Because this is his money and it's in his interest to collect just as much money as he can. This is in his interest, to develop the company, because if he will stay in one position, then some years later there will be great problems for him just to stay in the market, selling the products. Or maybe just to conquer other markets. That is why only one person is now responsible for everything and only one person is the motor for the whole organisation. And everybody is just trying to generate ideas for him. And he makes the decisions; from these ideas. Where he is going to go, what he is going to do at home and so on.

Looking in the future, how will the Russian steel industry look like about five years from now?

VV-I: First of all, what changed in the last five years, Russian companies went abroad and bought subsidiaries in foreign countries, in Canada, the United States, Europe, as well as in former Soviet Union countries. So this really happened in the last five years. Second important point, all major Russian companies made initial public offerings, went through initial public offering processes. So, as I said before, this did not change the structure of ownership greatly, however, at the moment all of them are listed in Russian or even London Stock Exchange markets, at fair prices that are defined by the markets. Third point, I think in the last five years all Russian companies went through processes of modernisation. They invested huge money in equipment and developed downstream processes. So before none of Russian metallurgical companies had colour-coated mills. So right now everybody has colour-coated mines and I think not just one. Another important point is that gradually, step by step, salaries of Russian workers and staff is increasing. And I can say it's increasing faster than productivity. I don't think it's a great disaster because we still have potential but salaries are growing. So it's not as shallow as it was five years ago. Of course, this is also underpinned by huge growths in prices of steel on markets. In the next five years, from my point of view, the modernisation process will continue because steel, despite of great sums involved, there are lots of errors which need to be replaced and revamped and I think Russian major metallurgical companies will move from just revamping of equipment to Greenfield. Because you can't revamp old furnaces: all Russian plants have long histories. They originate from first or second part of the last century so I think there is a lot of pressure. Second, I hope that Russian steel companies will be merged with somebody or acquired so they will integrate in the world steel industry, I hope. I can say it's like an island at the moment: this island has bridges to the main continent of the steel industry, we have bridges, you know, some paths, but it's still not integrated enough. Maybe some kind of exit answer for this question would be consolidation of all Russian metallurgical assets under one company. "Russian Steel something" (laughs). If we talk about major I can say that Company X, Company N, Company M and Company E, so these are majors. All others, I can say that they are very shallow. But those four are competitors.

CV-I: I think that in the next five years there is a real necessity for mergers of the biggest companies in Russia. Because the struggle with Mittal is a possible separator. If we want to conquer parts of the world market, we have to merge and after that we just have to try to struggle with Mittal. Now I think there will be only two big players in the world market.

So you confirm that there is a strong trend toward mergers and acquisitions in the Russian steel industry?

VV-I: Yes, I think at the moment the eagerness to merge and acquire goes down a little bit because steel assets cost too much at the moment. But I can see that this is a cyclic process. And during the next cycle, from my point of view, we will merge in some sort of "Russian Steel" or merge with somebody else or get acquired. Because the experience of the whole industry, air travel, car industry, even polymer industry is showing that this whole process will result in five, maybe ten global players. And not just like right now.

So when will the next cycle begin?

VV-I: I think, you know at the moment, demand for steel is pushing prices and if there will be no great war, I think in five years time. That's my opinion.

CV-I: I think that it maybe three to five years. Global changes and in the Russian markets and industry will happen until 2010, I think. Three years, maybe five. Not more.

If we move more into internal analysis, what are the factors necessary for survival within the Russian steel industry?

VV-I: I think critical for survival of Russian companies is first of all the search for the right individuals at the top of the companies. We can see right now that lots of persons who are in high positions in companies are just sitting in their place and not going to move and not going to change. They are just satisfied with money and everyday they stay in the same position. It's a corrupt system. I think change in culture is inevitable in Russia. That's because we came to the end of our former heritage, the Soviet Union. In terms of reliability and in terms of competitiveness, because we understand that these are old business processes. The old approach to business processes costs us too much. And we cannot cover it with low salaries and low raw material prices because raw material prices are growing, salaries are growing so we begin to understand that we need to change. Lots of stuff is written in books but we need real changes. Because often something is done by some people but there is no result.

CV-I: For me I think that if we can take into account the present situation, I think that there are enough professional managers, top managers who have been attracted by our top managers to manage within the company. I think that in any case we are going in a very professional direction, following a professional way to survival. But the problem now is raw materials, the scrap. Because now the prices for these materials are really cheap, that is why the majority of these materials are just sold to Europe and other countries. That's because people who are selling these materials are really interested in profits, too. Now we have to solve this problem because if there are no raw materials there is no production. So I think we have to make some kind of, maybe base a warehouse.

You mentioned some tangible resources. Could you also comment on non-physical assets necessary for survival within the Russian steel industry?

VV-I: I think we need demand for our products. I think we need to look maybe ahead to see what the markets will require, to develop various steel grades and so on. That's very clear because in steel we do not produce such high standards of auto steel as in Europe. We will never have European class Russian cars; never have world class Russian steel. But I think right now that is a process that, I think, five or six global auto makers are constructing at the moment their Greenfield assembling units in Russia. But from my point of view, they will continue to assemble for a couple of years and then after that they will give us auto steel of highest grades, we will pay US margins as Arcelor in Europe they will give us here in Russia. So we have to be prepared. And this concerns not only auto markets but construction as well and so on, pipes, there is lots of steel required in the pipes industry. So, to deal with technology is important.

What is the role of the R&D department in this context?

CV-I: I'm not sure whether I can express a valuable opinion on this. What would be yield? For example, we have to spend 1050 kg of big iron to produce 1000 tons of crude steel. And from 1000 kg of crude steel we produce, for example, 960 kg of roll sheets and so on and so on. So I think we are discussing only yield qualifications for different options of development. For example, if we concentrate on auto sheets, what would be the yield of our mills taking into account the construction programme and so on and if we concentrate on pipe steel, and so on. I think it's more important. So the R&D department only takes care of concrete problems, for example, we have problems with melting of something, the grade of steel, what has happened, and so on but it's not actually strategic, from my point of view.

CV-I: I think that there are several things which will happen in any case: and maybe in 50 or 100 years there will be no such great demand for metal at all. And in any case we have to plan the production of any kind of materials. Pipes, for houses, construction steel and so on. As for me, I think that in the next 50 years, less than 50 years, everything will just be in the progress and we have to develop the equipment, we have to upgrade the equipment, to install new kinds of equipment, to produce new types of steel just to increase quality and so on. But nobody knows…

The change processes you mentioned to upgrade equipment and so on, are they in any way related to anticipation of changes in the external environment of the Russian steel industry?

VV-I: Maybe I have a comment upon this: we can see that in the steel industry demand for quality steel is growing constantly. So right now we concentrate on lowest and, you know, moderate, this broad categorisation of steel. So we have high standard, moderate and low. You still need low grade steels because you need to make stairways and so on. But I think Chinese metallurgical companies are pushing us from this low steel; definitely because we can't compare and compete with them in terms of costs. They are pushing and if we don't move upwards to higher grades of steel, we'll be pushed from moderate steel, where we are situated right now.

CV-I: I think that if we are talking about for example science, from the very beginning, when metallurgical companies have been developed, there were many suggestions from universities and institutes for different kinds and types of steel. They just suggested a great amount of technologies how to produce steel. But now, this is really poor. We are just trying to survive using our equipment which has been installed many years ago. Or we are just trying to look to the West. To America, to Europe, and only they now suggest different types of equipment such as degradation cameras or something like that. They think that is a great problem for us because we don't use the ideas of Russian scientists and Russian institutes. We are just trying to run after the market. For example, if we need some kind of steel, this steel can be produced with some type of technology and the customer is trying to explain to us what kind of technology we need, asking is it possible for us to produce that kind of steel or not? And we are just trying to understand it by ourselves and only after that we are planning what we are buying or what we have to buy; what kind of equipment we have to install to produce this type of steel. But on the other hand, if we had really highly developed science, for example if we co-ordinated our business with institutes, we could for example suggest them another type of steel which we could produce with the existing equipment and we don't need to install anything else. But to prove them, of course we have to have very strong, I don't know, scientists maybe or European professional steel makers.

VV-I:...short comment, I think what my colleague is struggling about and I totally agree with him is that in the Soviet Union there were great R&D institutions in the steel industry and they just invented new types of steel that were lighter, more reliable and so on. On a three-year basis they invented and invented and invented. During the 1990s all these systems were destroyed and devastated and right now they have labels on their drawers but there is no real originality inside. They are using luggage from the past. It's not appropriate in a modern world, I think. So we have to develop our R&D but this is not very good just for one company. Either, this should be some kind of national steel research centre or some kind of, or at least it should be bought from abroad. Because during the 90s, when Russia just tried to survive, some good R&D processes were in United States, Europe and South Korea and they didn't stop; they invented loads of stuff and if we want to survive we need to buy, I think.

How do you think the possible consolidation of Russian steel companies into one major player is likely to increase the importance of these issues?

CV-I: You mean with only one Russian player? But this is only because of MITTAL steel and we are just trying to survive because we have to sell our products to the other countries and if our competitor can sell steel with better quality at lower prices to other countries, of course they will choose this company. To survive separately will be impossible.

Earlier you mentioned the acquisition of R&D capabilities. Do you think mergers and acquisitions should be conducted with this rationale in mind?

VV-I: You know, I think this is not just something to be kept in mind but it should be implemented. The problem is, from my point of view, that, at the moment, it is just kept in mind. I think every Russian metallurgical company who have ever been to European steel companies is very surprised about the ways things are done; very

surprised, I have heard it lots of time from people who were impressed with things. However, a very small part of this is implemented in practice. I think, maybe, this process of internationalisation of Russian companies was a little bit corrected by the jump of steel prices. We don't need to care about costs too much if we gain, you know, 30% margins. Okay, you will say: "who cares?" I think in the next three years margins of steel companies will constantly decrease and come to zero level if we don't try to find some new ways of lean manufacturing or whatever. I think this should be implemented as well. That's my answer.

Are you saying that the Russian steel industry is currently still "protected from the world" but in a couple of years this is about to change?

VV-I: I don't think so. It's not protected. We have some regulations, you know, some taxes on imports but they are relatively low. At the moment I think that Russian companies are competing on the world market with the world rules. However, at the moments margins are so high that we can play on these markets. But from my point of view, you know, a strange and annoying and scary point is that during the last maybe three or four years, Russian companies are gradually concentrating on the Russian market. So they are pushed from the world markets but concentrate on the Russian market. That's because Russian market became more profitable. Okay, first step you use foreign markets, next step would be for foreign producers to come to Russia at your disadvantage. [Interviewee clarification: this meant that first you leave foreign market and then foreign producers come to Russia.] Of course, maybe it's just because of margins, but it's still strange because for example Toyota is not leaving the US market or pass just because UK market gives higher margins. So that's strange and a little bit scary.

CV-I: For me, I think that there actually is a problem with the world market now for Russia: Maybe it's not such a big problem but there is. I don't know why but European countries, European players are afraid of Russia. Maybe it's because of our culture, maybe because of our mentality. But nobody wants to attract Russian rich people who are just having their private big companies, attract them to the world markets, to merge with them through acquisitions and so on. Actually I don't know why. Maybe this is just a political question because, you know, with the situation in the world which is not so soft.

VV-I: You know there are quite a few changes in The Russian Federation. We feel that, you know maybe not just common people but also in the metallurgical industry, they are afraid of Russians. They do not treat Russian companies as neighbours and as equal partners. Okay, if you sell low grade steel and we can buy some steel and produce some very high margins, okay, then we do business with you. But if you came as a partner, that's the problem. You're treated like a person from the third world. That's an issue, I think in steel that's still an issue.

CV-I: So everybody just wants to avoid influence. I think so. Because even now there is some bad information, maybe, that there is a new stage of cold war now on the planet. I think it's not such a good thing for the Russian market because Russia is one of the potential players in this war and I think everybody is just afraid of nuclear weapons and so on and of course nobody wants to make long term contracts with our country, just to avoid influence.

Just a few more questions on mergers and acquisitions: what factors do you think are important for success or failure of M&A?

VV-I: I will try to make it short. If you really want to create a global player, you have to consider company's culture. You have to understand what you will do with this company, after you acquired it or you merged with it. In other cases, if you just see that a company is undervalued and you have spare money or you can borrow it from some financial institutes, then you buy it. But then you don't understand what to do with it. Yes, you own this and you receive profits. But you can't control it because it's just paying your dividends and so on but it's not integrated in your infrastructure. I think such mergers will sooner or later spin out. Will act like an institutional investment, buy it cheaper and sell it afterwards at half the price. So for a merger to be successful, we have to solve strategic problems, how we will interact, what synergies can be achieved, what does it mean, what processes; we have to consider what is the synergy we can gain from this merger, to be a real merger. Considering these factors will be a separation from just institutional investments. We have to understand how this acquired company will fit in your value chain and so on. Not just, okay, we generate 10 millions per year, so I will buy it for 30 millions and I will have the money back in three years when I will gain profits.

CV-I: As a commercial I can say that, for example, acquisitions, as I think, it's just a game: you are a player, you have money, just take part in a tender [offer] and if we lose this tender then somebody else is trying to buy and develop it. From that account, if for example the tender is successful, then it's very easy just to buy a company and just to make your own policies inside of this company, maybe to change a little bit of the culture, it's not so difficult. But if we talk about mergers, I think it is very serious and a very dangerous process. Because wherever there are different cultures, wherever different mentalities, we can even compare the quantity of specialists working in directorates; for example the quantity of specialists working in Russian managements will maybe five or six times bigger than in European companies. And after merging, of course, the policies will be changed and actually a great amount of people just stay without jobs. And so on and so on. But on the other hand we can speak about salaries: if we are working in one big company, which has been merged, even we can not understand what kind of salaries will be after merging, because if we can just remember the acquisition of, no, it's not a good example, because, I can not give you any clear example of mergers…

VV-I: …I think what my colleague is struggling about is that if you plan to acquire a company you just need some money. But if you want to implement it you have to have a strategy.

CV-I: You have to combine strategies; you have to make something whole. I think it's very dangerous and it's a very long term process. It's not so easy. To sell your shares, just to combine the companies, to sit for three days at round tables, to discuss something like: "It's okay, we are working together". But the results can be very interesting. I'm talking about companies from Europe and American, not inside of the country. We have the same culture, the same mentality, the same, maybe, salaries and so on. So it is very easy to combine inside of the country. But it's a great risk, maybe profit, to combine with companies from other countries.

Appendix D Case study protocol structure

UNIT OF ANALYSIS
Dynamic capability building in the Russian steel industry

Themes [DCV lens; informed by managerial perspective]

- Dynamic capabilities building
- Dynamic capabilities building and the M&A process
- DCV and managerial processes: contradictions and implications

Theoretical propositions

1) The DCV represents a logical theoretical development and further highlights RBV myopia concerning existence and achievement of sustainable competitive advantages in today's business contexts

2) Dynamic capabilities analysis and respective building efforts may represent threshold capabilities within individual industries. They are complex, case- or industry-specific and, in terms of purpose and objectives, diverge from achievement of competitive advantages

3) Dynamic capability building is principally an organic exercise but "intelligent" M&A activities may provide capability building modules and access to resource bases which could theoretically accelerate or facilitate this process.

Case study questions

- What is the nature of application of DCV-related theories on the steel industry?

- How do path dependencies affect the processes associated with dynamic capabilities building? How can the latter be systematised, monitored and analysed? What is the intended outcome of such exercises? How is the potential for resource deployment identified?

- How are dynamic capabilities building activities integrated into daily managerial procedures?

- How are M&A strategies linked with dynamic capabilities building?

- How can business organisations survive in the steel industry of 2008? What are the threshold capabilities? What strategies are in place to create or sustain them?

Context and background→M&A process→Dynamic capabilities building →Synthesis

Appendix E Chronology of semi-structured interviews and list of interviewees[2]

PILOT STUDY	UNIQUE ID CODE	DATE
1. Dimitry L.	**[LV-I]**	01/02/2007
2. Andrey S.	**[SH-I]**	02/02/2007
3. Vladislav N.	**[NO-I]**	27/02/2007
MAIN STUDY		
1. Sergey S.	**[SN-I]**	26/03/2007
2. Evgeny V.	**[EV-I]**	26/03/2007
3. Evgeny K.	**[KN-I]**	26/03/2007
4. Oleg K.	**[ON-I]**	26/03/2007
5. Ilya Z.	**[ZV-I]**	27/03/2007
6. Evgeny V.	**[VV-I]**	11/06/2007
7. Konstantine C.	**[CV-I]**	11/06/2007
8. Konstantin G.	**[GV-I]**	08/11/2007
9. Mikhail S.	**[SV-I]**	09/11/1007
10. Alexey P.	**[PV-I]**	12/11/2007

[2] Surnames anonymised

Appendix F Relevant documents: confidential management reports Company X[3]

NAME	UNIQUE ID CODE	YEAR
1. Maxim E.	**[EV-R]**	2007
2. Oleg K.I	**[KN-R1]**	2007
3. Oleg K.II	**[KN-R2]**	2006
4. Alexander R.	**[RV-R]**	2006
5. Andrey Y.	**[YV-R]**	2006
6. Andrey Z.	**[ZV-R]**	2006
7. Dmitry L.	**[LV-R]**	2006
8. Evgeny C. I	**[CN-R1]**	2006
9. Evgeny C. II	**[CN-R2]**	2006
10. George S.	**[SV-R]**	2006
11. Konstantin G.	**[GV-R]**	2006
12. Ksenia L.	**[LA-R]**	2006
13. Natalia P.	**[PA-R]**	2006
14. Olga E.	**[EA-R]**	2006
15. Volkov V.	**[VM-R]**	2006
16. Sergey K.	**[KV-R]**	2005

[3] Surnames anonymised

Appendix G Extract KN-R2

Company X and consolidation

Thesis of inevitability of the steel industry being consolidated tends to be most likely an axiom within the recent time. Here are just some reasons supporting such an approach.

- Steelmakers are disadvantageously positioned right in the middle of the production chain: from one side they are under the suppliers' pressure and from the other side the consumers enjoying the higher consolidation and trying to cut down the steelmakers' margin.
- The opportunities of increasing the efficiency and decreasing the costs at the integrated and technologically old-fashioned steelmaking companies are limited to a great extent. At the same time the modern technologies have slowed down the entry barriers and made the competition more challenging.
- Steelmaking companies are operating in the conditions of the permanent fight with the so-called "price scissors". The gap between an increase in the prices for resources (gas, electricity, labour) and those for the steel makes just average 2% annually. .

It means that the only way out of the current situation the world steelmaking industry has recently found itself in is getting consolidated. There are more supportive arguments to consolidation as the "China and the rest of the world" problem is becoming an issue considering the growth paces of the Chinese steel industry in comparison with the others seem to be more than threatening.

Speaking of the inevitability of consolidation it should be noticed that the latter is currently in progress. Most of the consolidations are carried out under a continental way, though there are some but few examples of transnational alliances. Among the companies which have risked the alliances under continental principle are Arcelor in Europe, Nippon Steel in Japan, Posco in South Korea, and LNM Group as an example of transnational alliance.

Russian and foreign companies have different approach towards the driving forces of the consolidation. Foreign companies tend to adopt horizontal integration consolidating the assets both in steelmaking stage and in rolling stage. The reasons for this are mentioned above. They are the long-term tendency of decrease in the prices for the finished products and the limited opportunities of cutting down the costs.

Along with the horizontal consolidation Russian steelmaking industry have mostly practised the vertical integration at least until recent time. Purchasing the assets of the ore and coal sector provides for regular and uninterrupted supplies and a higher resources and raw materials price stability for the companies that followed this way. At the same time, this allows more strict and careful controlling the costs in the major business. Moreover, purchasing the assets related to transportation pays dividends as it concerns cost saving and regularity of raw materials supplies and shipping the products to the consumers.

The differences between the driving forces of consolidation in Russia and the rest of the world reflect the extent of consolidation. It is higher in Russia – more than 70% out of total steel production in Russia in 2003 is covered by four steelmaking companies: Company M, Company N, Company X and Company E. So, the consolidation by means of purchasing the non-leading companies can not be admitted as reasonable as it will not provide for the market share growth due to the reason that the quality of the most of the assets of middle-size and small-size companies lacks perfection and the costs related to their restructuring may turn out to be very high. This quite predefines two main vectors of the consolidation process in the Russian steelmaking:

- The opportunity of creation of alliances between the leading Russian steelmaking companies. What seemed to be impossible yesterday is not considered the same today as the "all negotiate with all" principle is getting quite common. But one should bear in mind that the mere wish to hit the higher positions in World Steel Top-20 is not the sole and sufficient stimulus for such super consolidations.

- At the same time along with integration of Russian big business into the world economy there are the intensively developing prerequisites for the consolidation of Russian steelmaking companies into big transnational corporations.

The current situation is that Russian ferrous metallurgy has rather sustainable competitive advantages such as the proximity of the raw materials and cheap labour force. The other advantages such as energy, fuel and transportation costs tend to be gradually minimised though it is unlikely that they will match the "top" of the world prices.

So, as the Russian steelmaking is positioned the global steel business it seems quite prospective in regard with the possible beneficial co-operation. It is obvious that Russian companies have a distinctive advantage in slab and hot rolled coils production over foreign companies. This advantage is quite sustainable as Russian companies support it due to their capability to keep costs related to raw materials, labour and logistics low. On the contrary, European and American companies produce quite expensive slabs and hot rolled coils but possess good capacities for producing the high quality finished products and have an access to the attractive markets. Our advantages combined may result in synergetic effect and thus the participation in transnational corporations seems a quite possible development of the events.

At the same time, the hope to gain the respectable position in world steel market based only on the mentioned above competitive advantages is quite naïve. Considering the intensification of the competition both domestic and international the Russian companies must do their best to strengthen their competitive advantages and eliminate the so-called "bottlenecks". What characteristics must a Russian steelmaking company possess to cast the challenge to the current competition? I see them as follows:

- having the own raw materials bases in possess
- finished products being vertically integrated
- own transport infrastructure
- well developed own energy base
- well thought-out investment program for the further production facilities increase and costs reduction
- large share at the domestic market, especially at the most profitable commodity groups
- well developed production facilities and quality technology for the manufacturing of the goods with the high value added
- system of corporate management, which provides effective development of the company

At the end of the whole speech we can summarise: already at the nearest future the total, including international, consolidations in the steel industry would be so commonplace, that it would be very boring to talk about them, just as to discuss the snow falling in winter, or to argue that water is wet. Even now we give more time to ascertaining of what is present, but not to forecasting of the future situation in this field – the trend evident, and the main question is not "How?" but "Who?" Perhaps soon we will get the comprehensive answer on this question.

Appendix H Coding list [tree and free node categories]

Appendix I Code manual 1 [raw codes]

- Management theory and practical relevance/limitations/reliability of analysis
- Background
- World steel industry characteristics
- World steel industry and diversification
- US steel industry 2007 main characteristics
- US steel industry 2007 dynamic nature and past/recent changes
- Russian steel industry 2007 main characteristics
- Russian steel industry 2007 and World steel industry differences
- Russian steel industry 2007 major competitors
- Russian steel industry 2007 level of rivalry
- Russian steel industry 2007 dynamic nature and past/recent changes
- Russian steel industry 2007 macro environmental changes (future-related)
- Russian steel industry 2007 future forecast
- Russian steel industry 2007 value of external analysis
- Russian steel industry 2007 threshold resources and CSF
- M&A general success/failure rates/complexity
- M&A identification suitable targets/screening processes
- M&A identification suitable targets/synergy
- M&A value creation
- M&A post-acquisition/integration
- M&A post-acquisition/resource combination and links with core competences
- M&A and world steel industry 2007
- M&A and world steel industry 2007 consolidation, trends and cycles
- M&A and world steel industry 2007 and link with business strategy
- M&A and US steel industry
- M&A and the Russian steel industry 2007 consolidation, trends and cycles
- M&A and COMPANY X specific deals
- M&A and COMPANY X vertical integration
- Dynamic capabilities general
- Dynamic capabilities general competitive survival
- Dynamic capabilities general routines and processes
- Dynamic capabilities general mergers and acquisitions
- Dynamic capabilities general links with intangible resources
- Dynamic capabilities general facilitation and control of adaptation of intangible resources
- COMPANY X current position in Russian steel industry
- COMPANY X strategic planning department
- COMPANY X strategic planning department specific strategy-making processes
- COMPANY X technology department
- COMPANY X production department
- COMPANY X internal analysis
- COMPANY X internal identification of resources and capabilities
- COMPANY X dynamic capabilities
- COMPANY X dynamic capabilities and links with R&D/technology department
- COMPANY X dynamic capabilities routines and processes
- COMPANY X dynamic capabilities and threshold resources
- COMPANY X dynamic capabilities and links with macro environmental analysis
- COMPANY X North America internal analysis

Appendix J Node example NVivo7

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